JACARANDA ATLAS

NINTH EDITION



50TH ANNIVERSARY EDITION

JACARANDA ATLAS

NINTH EDITION



COORDINATING AUTHOR

RAYMOND PASK

AUTHORS

RAYMOND PASK | LYNNE GRIFFITHS | JANE BELLAMY | JILL PRICE
NICOLE GRAY | JOHN RAMSDALE | ALEX ROSSIMEL

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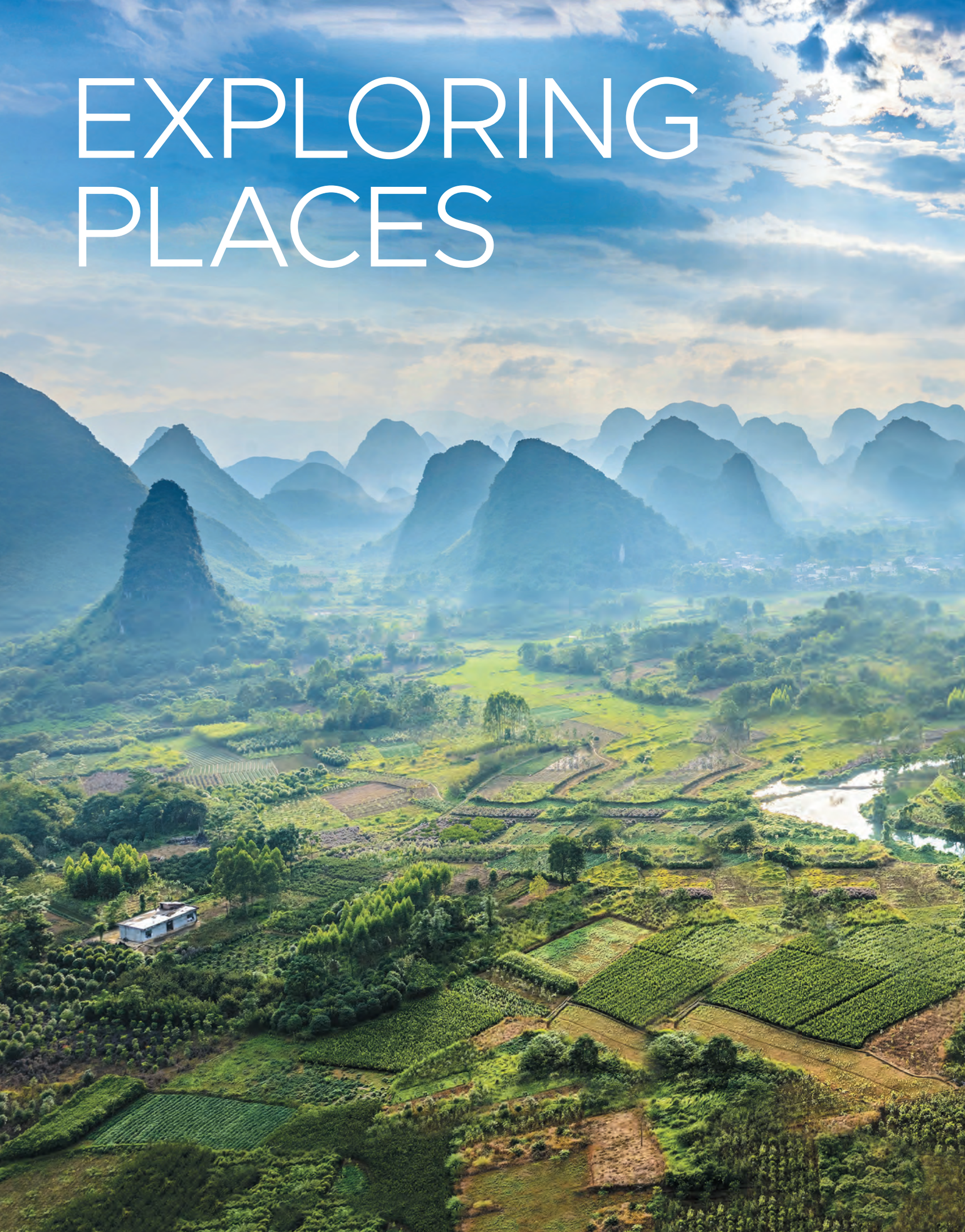
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EXPLORING PLACES




24° 46' N, 110° 29' E
YANGSHUO COUNTY, CHINA

World by night



Source: NASA Earth Observatory



Key

City lights

Land

Water

World by day



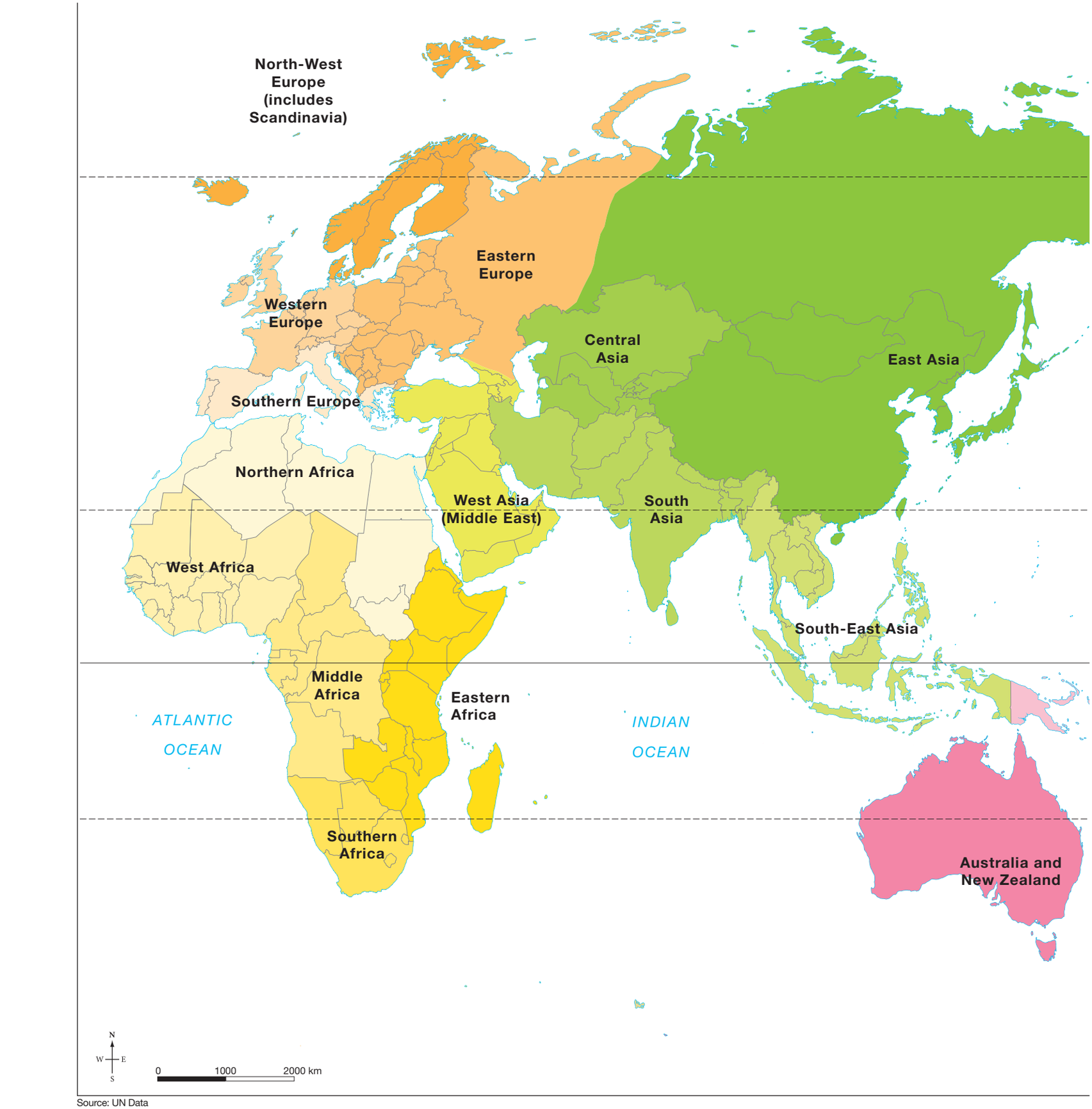
Source: Reto Stöckli, NASA Earth Observatory



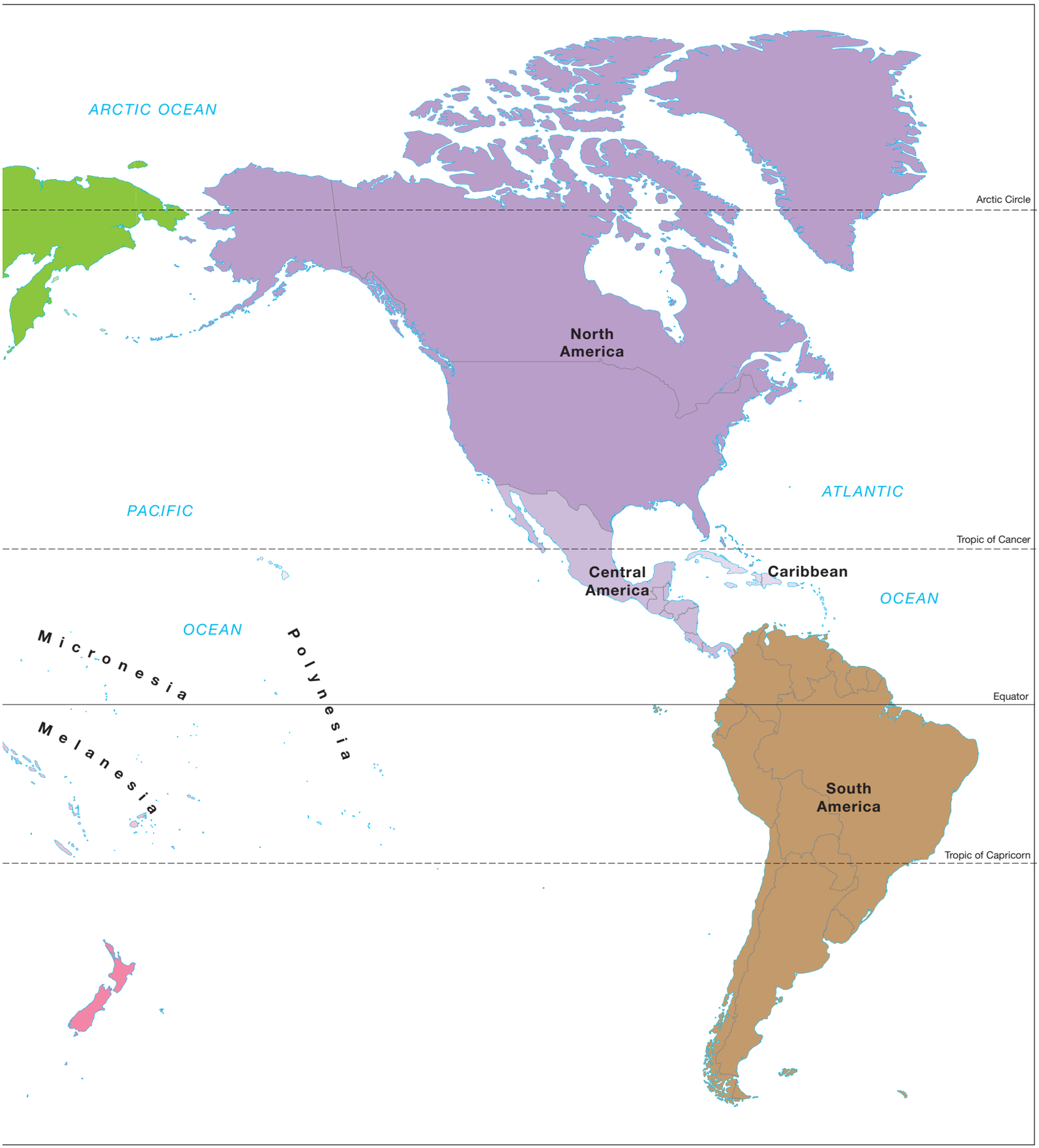
Key

- Desert
- Grassland
- Forest
- Snow and ice
- Islands
- Water

World regions



Source: UN Data

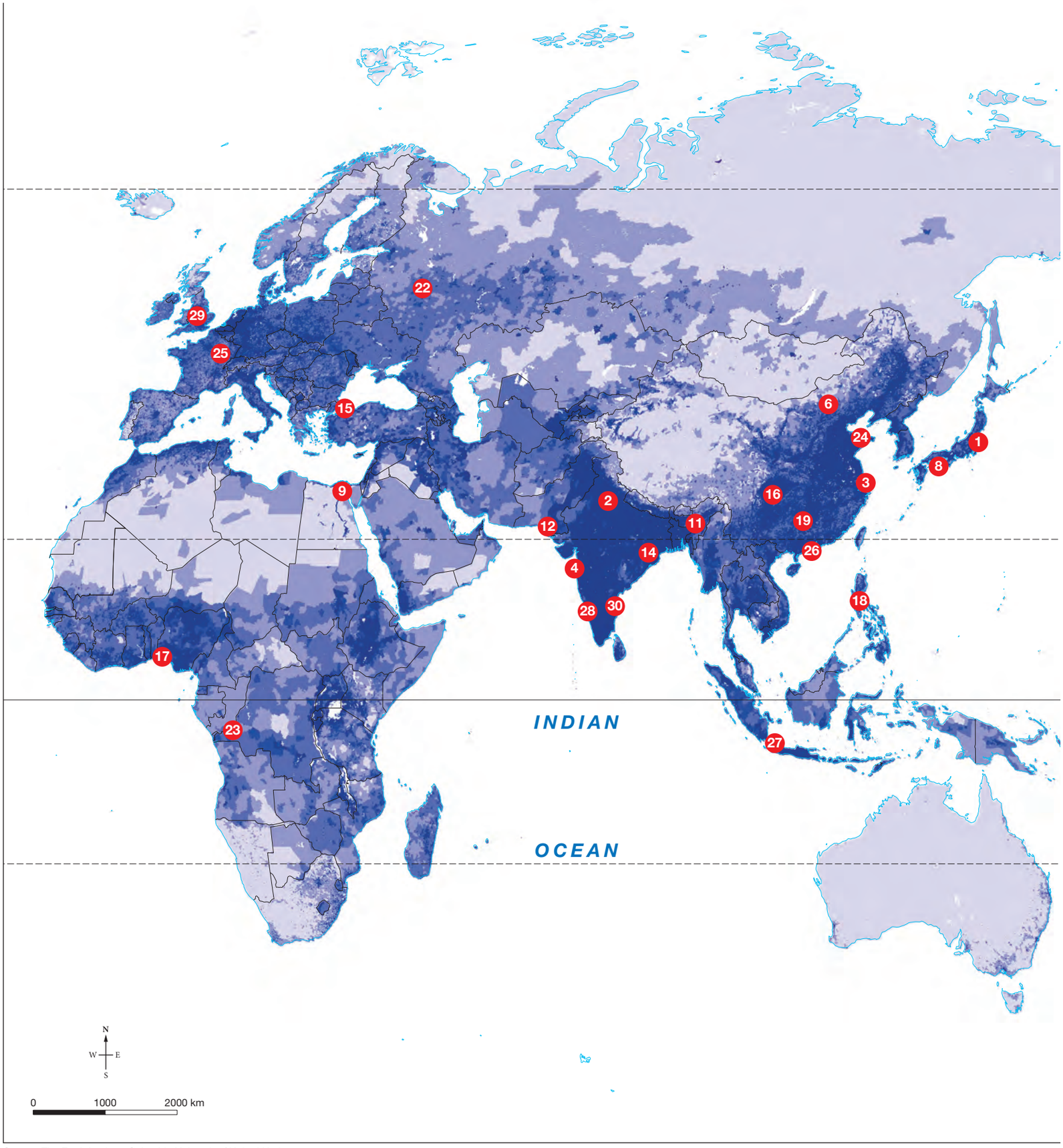


Key

- North-West Europe (includes Scandinavia)
- Eastern Europe
- Western Europe
- Southern Europe
- Eastern Africa
- Southern Africa
- Middle Africa
- West Africa
- Northern Africa
- East Asia
- Central Asia
- South Asia
- South-East Asia
- Australia and New Zealand
- Melanesia
- Micronesia
- Polynesia
- North America
- Central America
- Caribbean
- South America

World population distribution





Source: The Earth Institute Columbia University / United Nations

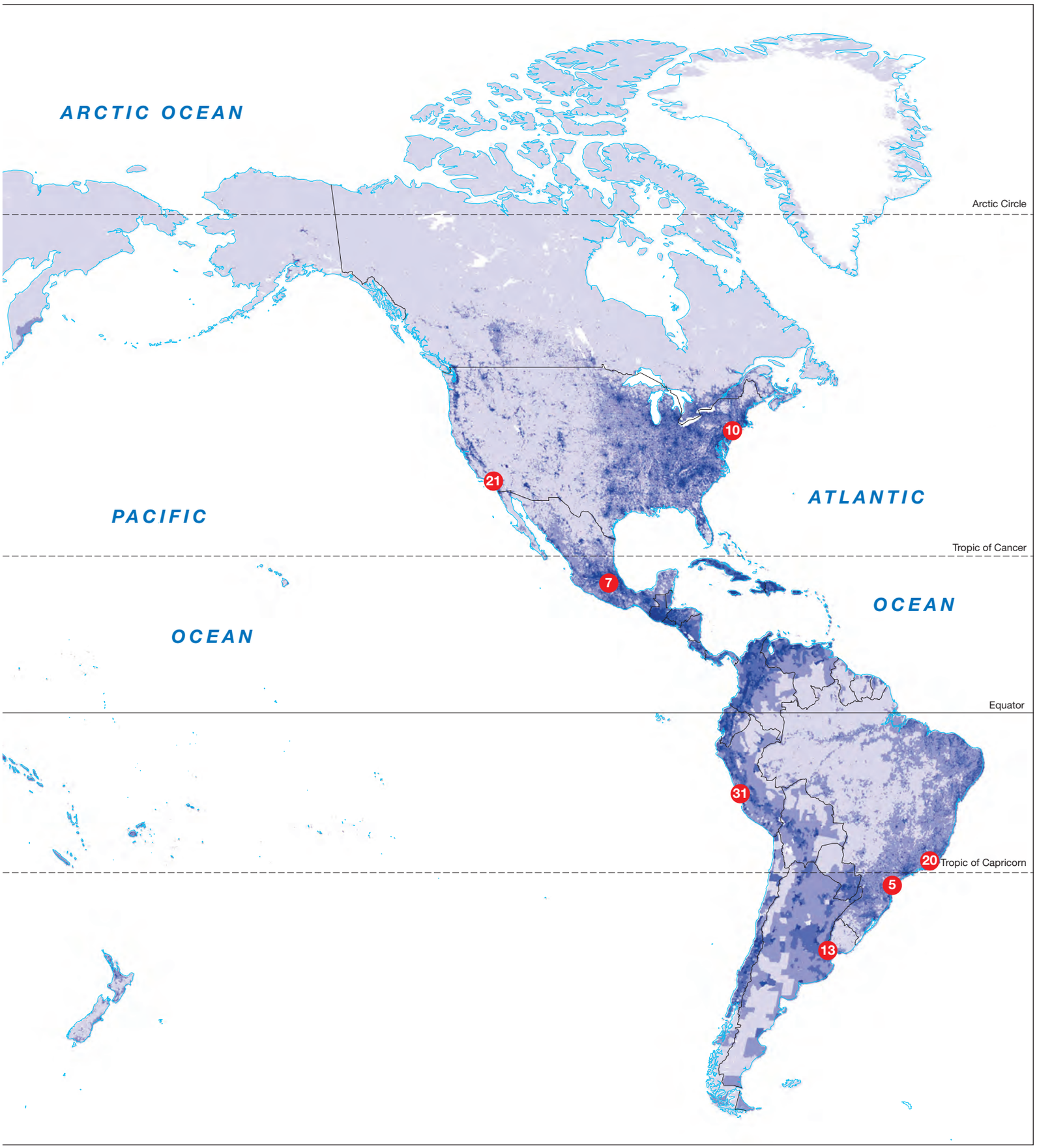
Key

Number of people per square kilometre, 2016

- 100 and over
- 50–100
- 10–50
- 1–10
- Less than 1

Population of largest cities, 2016

1. Tokyo — 38.1 million
2. Delhi — 26.4 million
3. Shanghai — 24.5 million
4. Mumbai — 21.3 million
5. Sao Paulo — 21.3 million
6. Beijing — 21.2 million
7. Mexico City — 21.1 million
8. Osaka — 20.3 million
9. Cairo — 19.1 million
10. New York — 18.6 million
11. Dhaka — 18.2 million
12. Karachi — 17.1 million
13. Buenos Aires — 15.5 million
14. Kolkata — 14.9 million
15. Istanbul — 14.3 million
16. Chongqing — 13.7 million



17 Lagos — 13.6 million
18 Manila — 13.1 million
19 Guangzhou — 13.1 million
20 Rio de Janeiro — 12.9 million
21 Los Angeles — 12.3 million
22 Moscow — 12.2 million
23 Kinshasa — 12.1 million
24 Tianjin — 11.5 million
25 Paris — 10.9 million
26 Shenzhen — 10.8 million
27 Jakarta — 10.5 million
28 Bangalore —10.4 million
29 London — 10.4 million
30 Chennai — 10.1 million
31 Lima — 10.1 million

Human features and map conventions

The relief maps in this atlas contain a great deal of information about the human features of the region they cover. The conventions used to represent human features — such as settlements, roads, boundaries and national parks — are explained in the annotations.

A. Place with over 5 000 000 people

B. Place with between 1 000 000 and 5 000 000 people

C. Place with between 500 000 and 1 000 000 people

D. Place with between 100 000 and 500 000 people

E. Place with under 100 000 people

F. Country name

G. Country capital

H. Island name

I. International boundary

J. Road

K. Railway

A RELIEF MAP SHOWING HUMAN FEATURES



Source: Natural Earth Data, www.naturalearthdata.com / ETOPO1 / WDPA

Natural features and map conventions

The relief maps in this atlas contain a great deal of information about the natural features of the region they cover. The conventions used to represent natural features — such as landforms, rivers and coastlines — are explained in the annotations.

B RELIEF MAP SHOWING NATURAL FEATURES



Source: Natural Earth Data, www.naturalearthdata.com / ETOPO / WDPA

A. Map square alpha reference

B. Longitude

C. Coastline

D. Wetlands

E. River

F. Ocean depth between 0 and 200 metres

G. Ocean depth between 200 and 2000 metres

H. North indicator

I. Map square numeral reference

J. Scale as a ratio

K. Linear scale

L. Map projection

M. Latitude

N. Lake

O. Land between 0 and 200 metres above sea level

P. Land between 200 and 500 metres above sea level

Q. Land between 500 and 1000 metres above sea level

R. Landform feature

Australia: human features

GEOFACTS

Largest state:
Western Australia
2 529 875 sq km
(C3)

Smallest state:
Tasmania 68 401 sq km
(E1)

Largest population:
New South Wales
7 725 900
(E2)

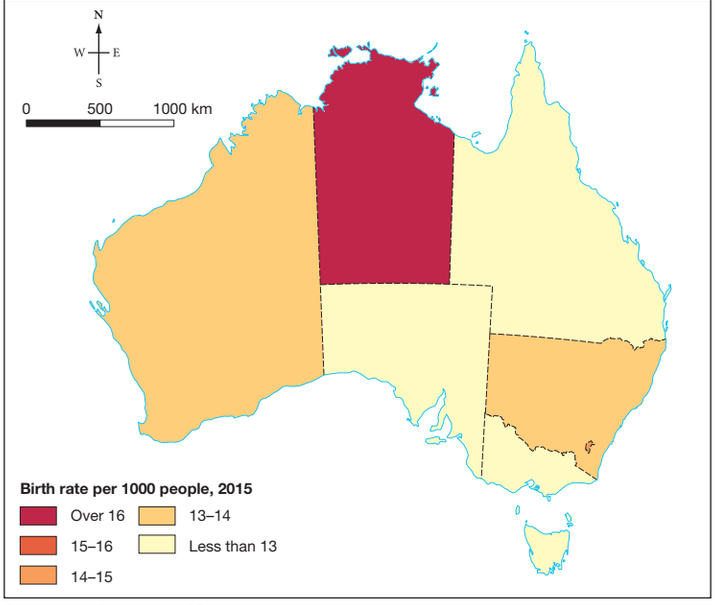
Smallest population:
Northern Territory
244 900
(D4)

Largest city:
Sydney
4 921 000
(F2)

Australia's GDP per capita:
US$56 301

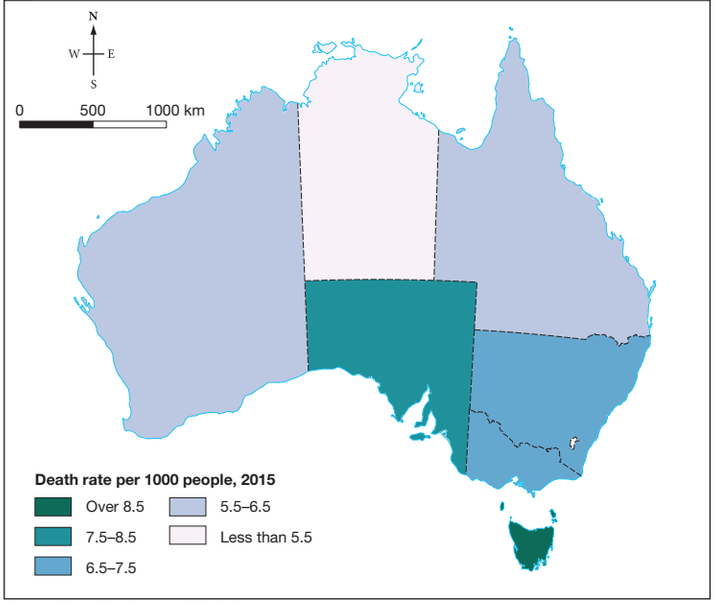


A BIRTH RATES



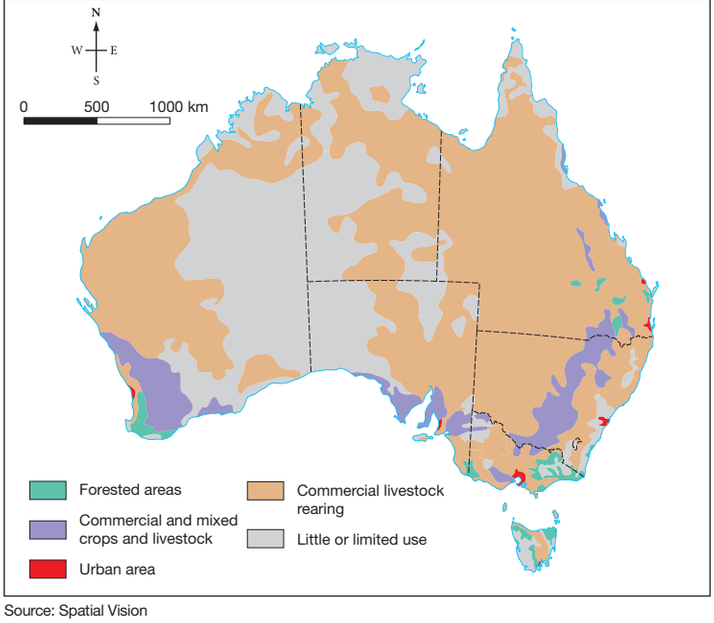
Source: Australian Bureau of Statistics

B DEATH RATES



Source: Australian Bureau of Statistics

C AGRICULTURE



Source: Spatial Vision





Source: Geoscience Australia © Commonwealth of Australia 2016

Key

Lake	**AUSTRALIA** Country name	**Brisbane** Over 1 000 000 people	Major road
Reef	Country capital	**Townsville** 100 000 to 500 000 people	Major railway
	State/territory border	Rockhampton 50 000 to 100 000 people	
	State/territory capital	Gladstone 10 000 to 50 000 people	
		Kingaroy 5000 to 10 000 people	
		Bourke Under 5000 people	

Australia: natural features

GEOFACTS

Highest point:
Mount Kosciuszko 2228 m
(E2)

Lowest point:
Lake Eyre –15.8 m
(D3)

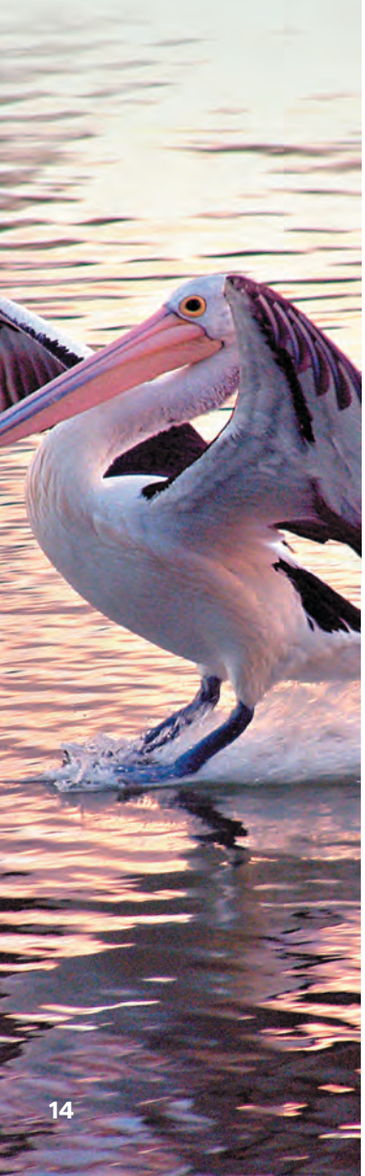
Longest river:
Murray River 2508 km
(E2)

Highest temperature:
Oodnadatta (SA) 50.7 °C
(D3)

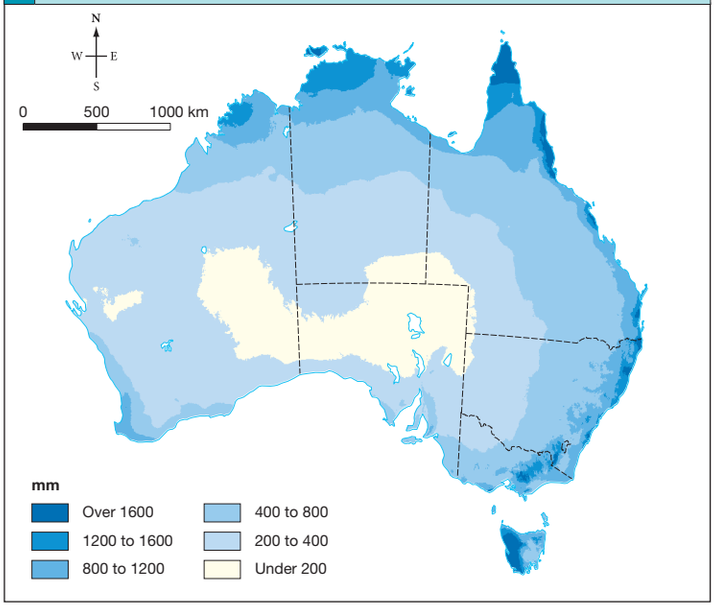
Lowest temperature:
Charlotte Pass –23 °C
(E2)

Highest annual rainfall:
Bellenden Ker 12 461 mm
(E4)

Lowest annual rainfall:
Troudaninna 105 mm
(D3)

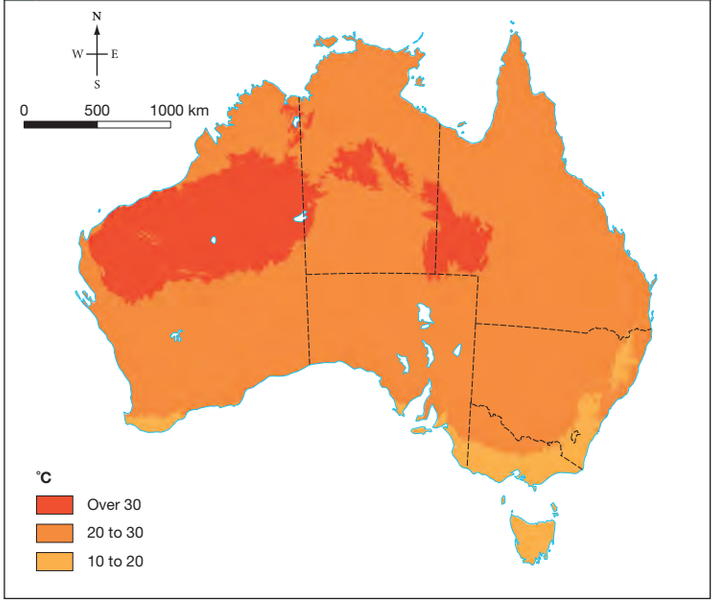


A ANNUAL RAINFALL



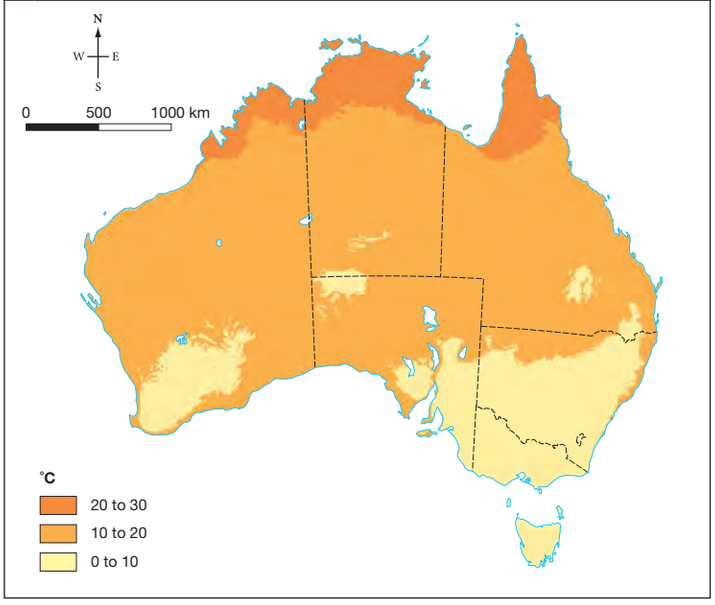
Source: WorldClim

B JANUARY TEMPERATURES

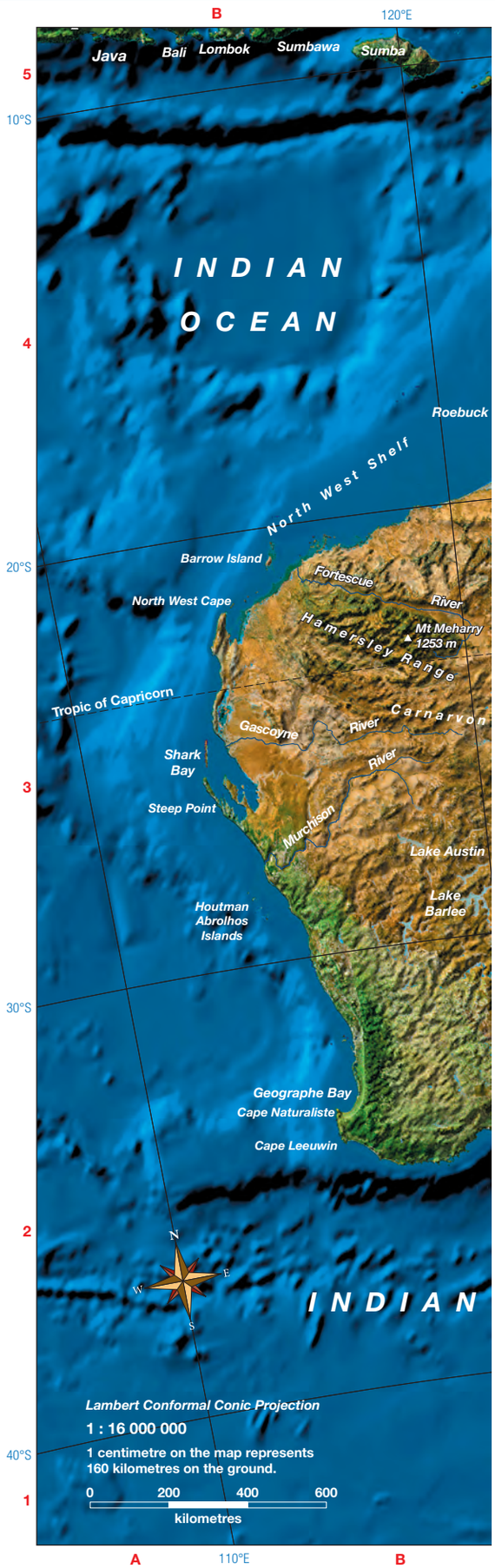


Source: WorldClim

C JULY TEMPERATURES



Source: WorldClim





Source: © WorldSat International, 2017

Key

River | Desert | Forest | Lake | Mountains | Islands | Seamounts | State borders

Australia: hazards

Every Australian state and territory is affected by natural hazards **A**. Natural hazards include atmospheric (or weather) hazards such as heatwaves and severe weather, as well as hydrological (or water) hazards such as floods and droughts.

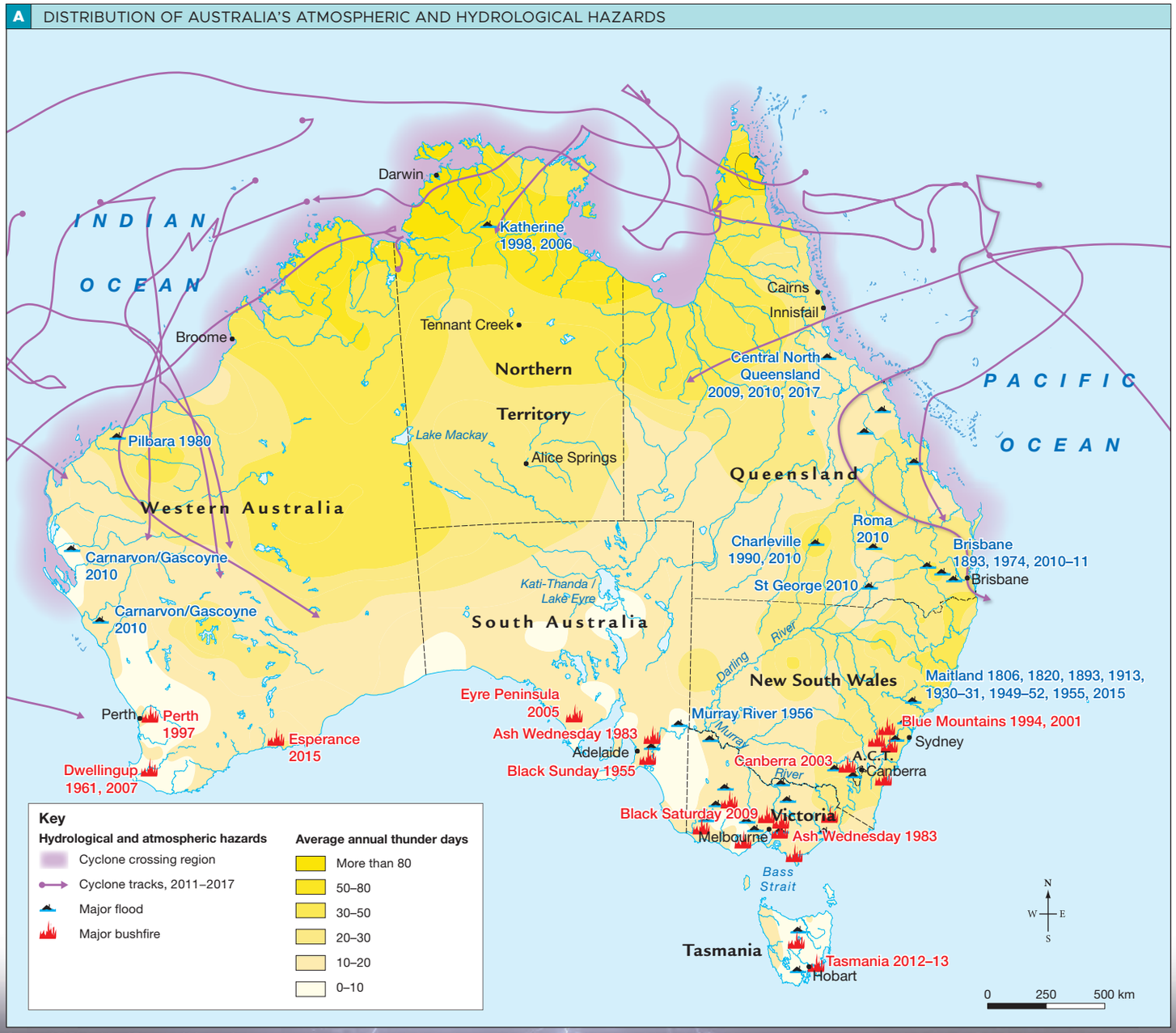
Atmospheric hazards

Severe weather

Severe storms occur more frequently than any other hazard event **B**.

Thunderstorms develop when warm, moist air close to the ground rises quickly, developing into towering columns of clouds. These can reach heights of 20 km, producing severe weather conditions. A severe thunderstorm typically produces hail with a diameter greater than 2 cm, wind gusts of greater than 90 km/hour, flash floods and tornadoes.

A DISTRIBUTION OF AUSTRALIA'S ATMOSPHERIC AND HYDROLOGICAL HAZARDS



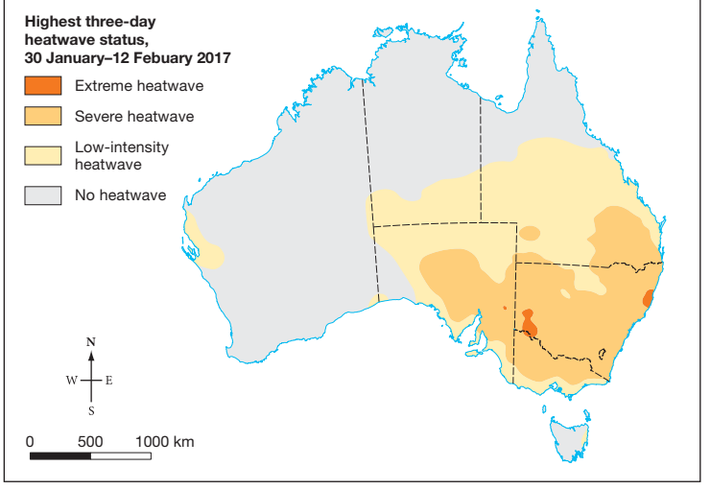
Source: MAPgraphics / Bureau of Meteorology

B *A severe weather event over Perth. A bolt of lightning can travel at a speed of 160 000 km/hour, with temperatures of 30 000˚C!* ▼

Heat waves

In the past 200 years, more people have died from heat wave conditions than any other natural hazard event in Australia. A heatwave occurs when there are three or more days of high maximum and minimum temperatures that are unusual for that place C. An extreme heatwave will affect people, especially the young and the old, as well as infrastructure; for example, rail lines may buckle. Extreme heatwaves usually correlate with dangerous fire weather conditions over much of the southern states of Australia C.

C DURING JANUARY AND FEBRUARY 2017, THREE DISTINCT HEATWAVES AFFECTED LARGE REGIONS OF EASTERN AUSTRALIA, BREAKING MANY WEATHER RECORDS.



Source: Bureau of Meteorology

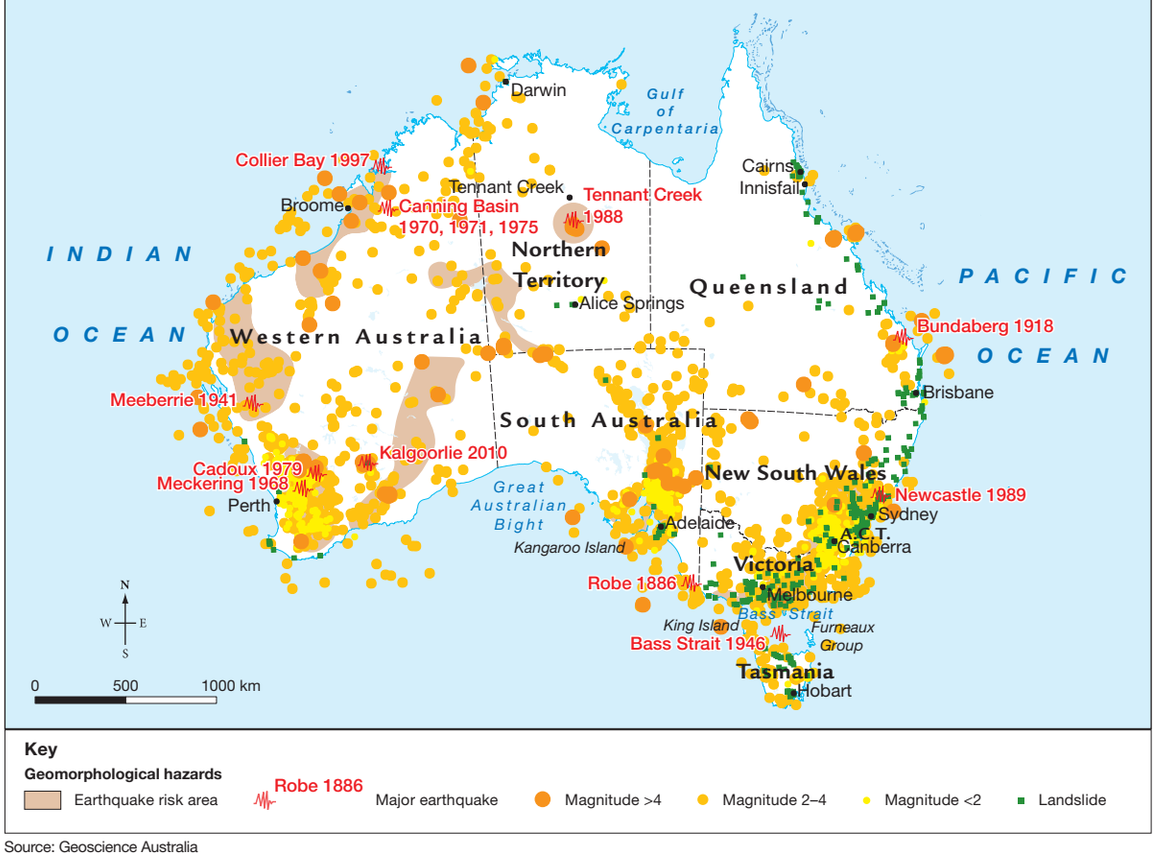
Geomorphological hazards

Geomorphological hazards involve the movement of crustal plates and the Earth's surface. Examples are: earthquakes, volcanoes, tsunamis, landslides and avalanches D.

Landslides

A landslide is the movement of rock, debris or earth down a slope. A combination of factors creates landslides, including the slope angle, climate, water soil moisture, vegetation cover and geology. Landslides occur naturally but can also be triggered by human activities. Mining, clearing vegetation or changing the slope of the land can create instability in the soil layers. Landslides have resulted in deaths and injuries, environmental degradation and millions of dollars worth of damage to roads, rail and other infrastructure.

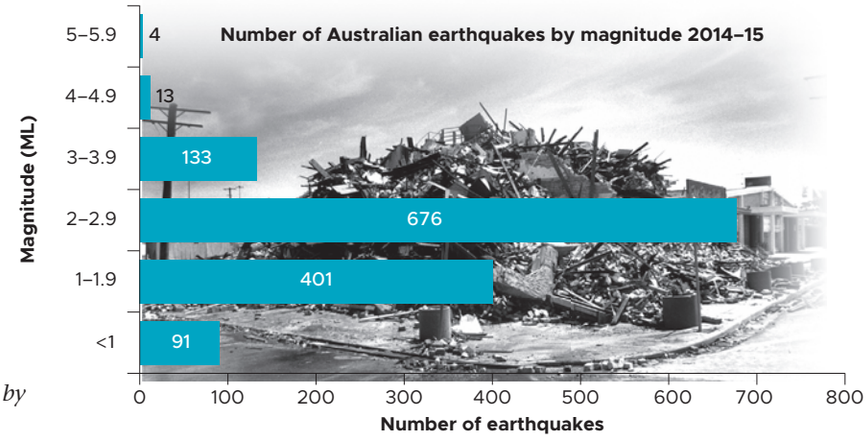
D DISTRIBUTION OF AUSTRALIA'S GEOMORPHOLOGICAL HAZARDS



Source: Geoscience Australia

Earthquakes

Earthquakes are caused by movements in the Earth's crust where crustal plates converge and grind past each other or when stress is released along fault lines. Australia is located in the centre of the Australian Plate, which is slowly being pushed north into the Philippine Plate at an average of 7 cm each year. The release of stresses built up from compression results in minor earthquakes D. These tend to be rather shallow, with the focus less than 10 kilometres deep and with a low magnitude of intensity E.



E *The number of earthquakes at different magnitudes for Australia for 2014–15. Image shows the damage caused by the Newcastle earthquake in 1989.* ▶

GEOFACTS

Highest annual rainfall:
Bellenden Ker (Qld) 12 461 mm

Lowest annual rainfall:
Troudaninna (SA) 105 mm

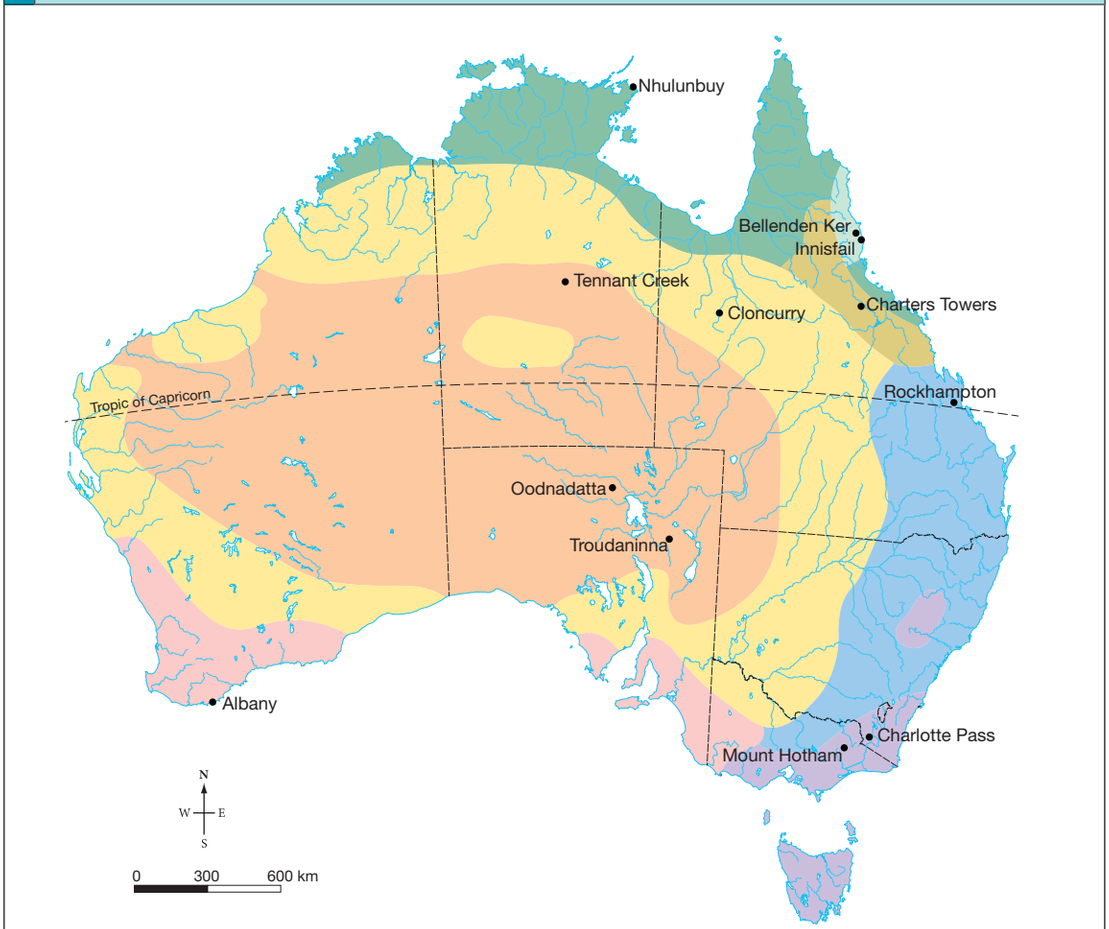
Highest temperature:
Oodnadatta (SA) 50.7˚C

Lowest temperature:
Charlotte Pass (NSW) −23˚C

Weather and climate

Weather is the day-to-day change in the atmosphere of a location, while climate is the average of weather conditions measured over a long period of time. Places that share the same type of climate are said to be in the same climatic zone **A**.

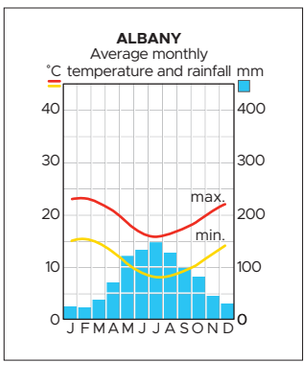
A CLIMATIC ZONES

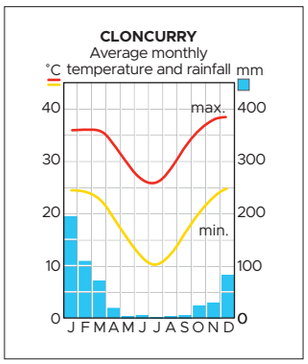


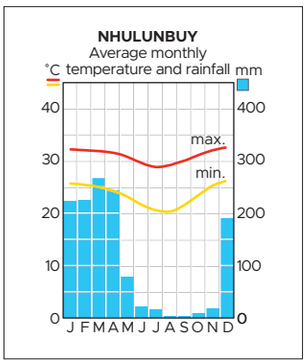
Climatic zones

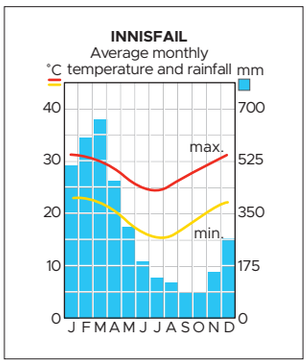
- **Tropical wet and dry** — Hot all year; wet summers; dry winters
- **Tropical wet** — Hot; wet for most of the year
- **Subtropical wet** — Warm; rain all year
- **Subtropical dry winter** — Warm all year; dry winters
- **Mild wet** — Mild; rain all year
- **Subtropical dry summer** — Warm all year; dry summers
- **Hot semi-desert** — Hot all year; 250–500 mm of rain
- **Hot desert** — Hot all year; less than 250 mm of rain

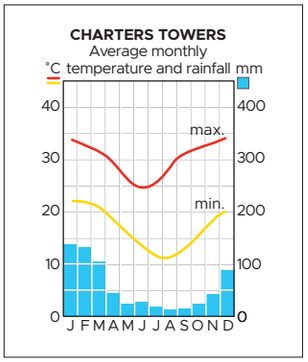
Source: Spatial Vision

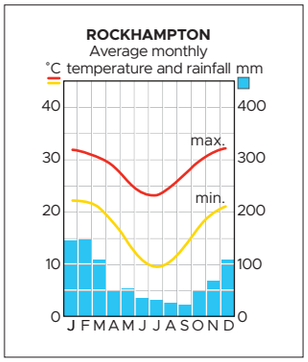


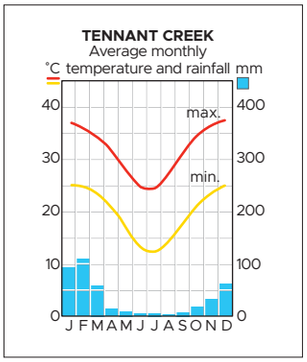


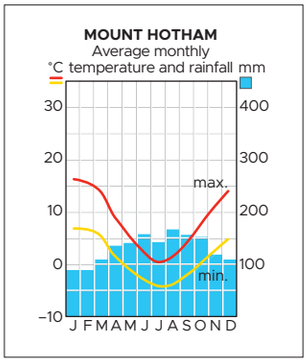








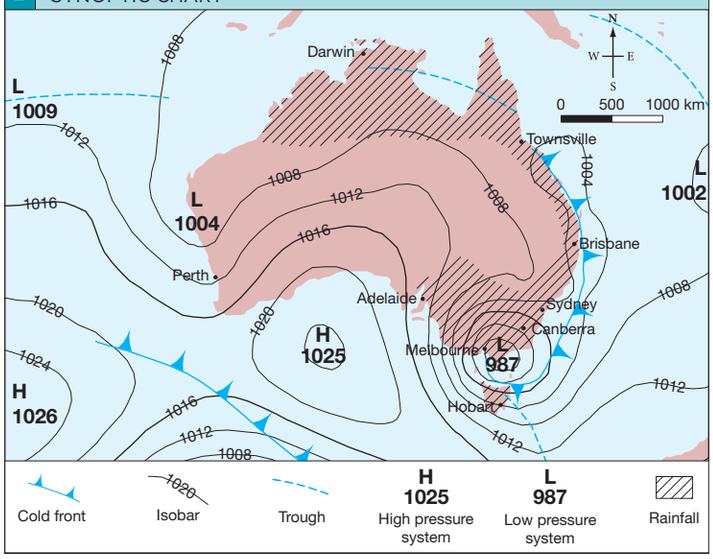




Weather maps

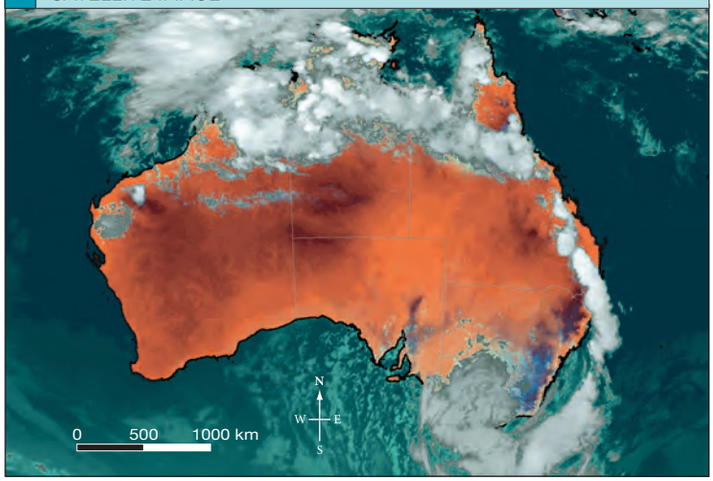
Daily weather conditions can be shown by satellite images C and weather maps (synoptic charts) B. Weather maps use lines and symbols D to show regions of high and low pressure and weather events such as cold fronts E F.

B SYNOPTIC CHART



Source: MAPgraphics

C SATELLITE IMAGE

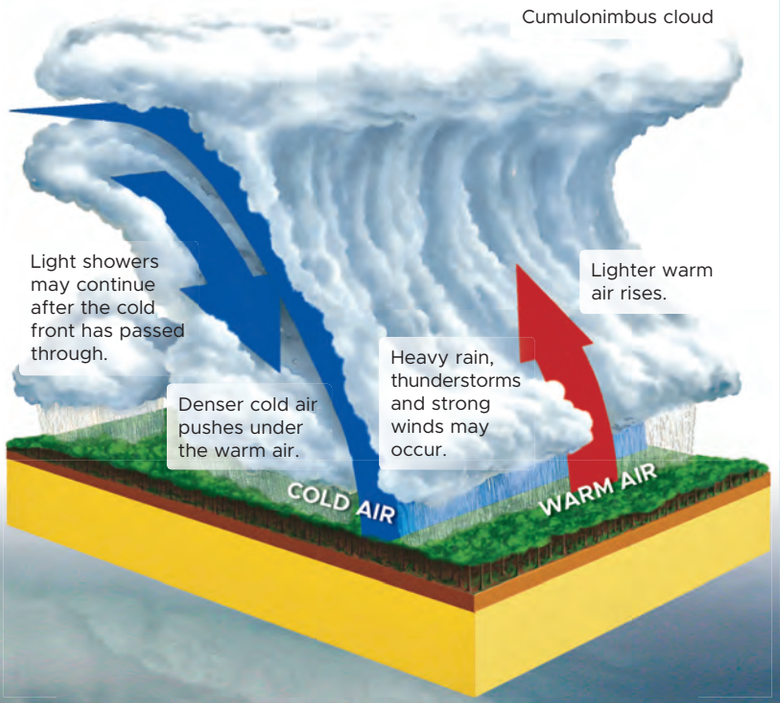


Source: NOAA / Copyright CommonwGMS-5 backup with GOES-9 operated by the joint effort of the Japan Meteorological Agency JMA and United States National Oceanic and Atmospheric Administration National Environmental Satellite

D Interpreting southern hemisphere weather maps

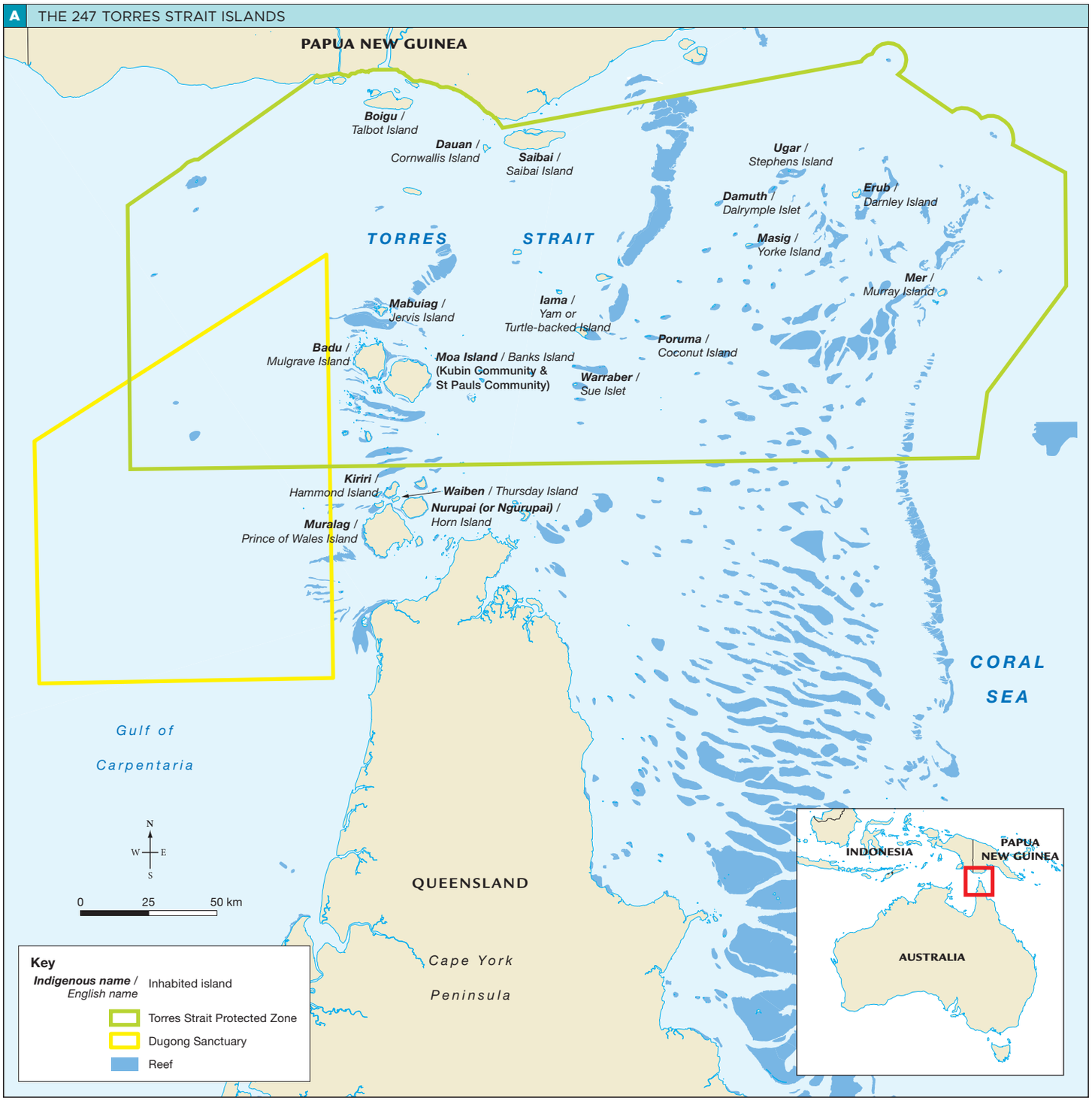
Symbol	Name	What does it mean?
	Isobars	Join places of equal air pressure. (The closer together these lines, the stronger the wind.)
	High pressure system	Sinking air. (Generally fine weather. Winds rotate around these systems anticlockwise and outwards.)
	Low pressure system	Rising air. (Generally unsettled weather, rain. Winds rotate around these systems clockwise and inwards.)
	Tropical cyclone	Rapidly spinning and rising air. (Strong winds, torrential rain.)
	Cold front	The 'line' along which an approaching mass of cold air meets warmer air. (Fall in temperature, rain. Front moves in direction of arrowheads.)
	Warm front	The 'line' along which an approaching mass of warm air meets colder air. (Temperature rise, sometimes light rain. Uncommon in Australia.)
	Rain	Rain in the last 24 hours. (Usually associated with low pressure systems, fronts and orographic rainfall.)

E COLD FRONT



F *This thunderstorm over Sydney precedes a cold front.* ▼

Torres Strait Islands and Indigenous management



Source: Geoscience Australia and Australian Institute of Marine Science / Data source for Dugong Reserve is Australian Institute of Marine Science 2017, Torres Strait Dugong Sanctuary 2003 TSRA, http://eatlas.org.au/data/uuid/674157b0-157e-46d8-be35-fd30

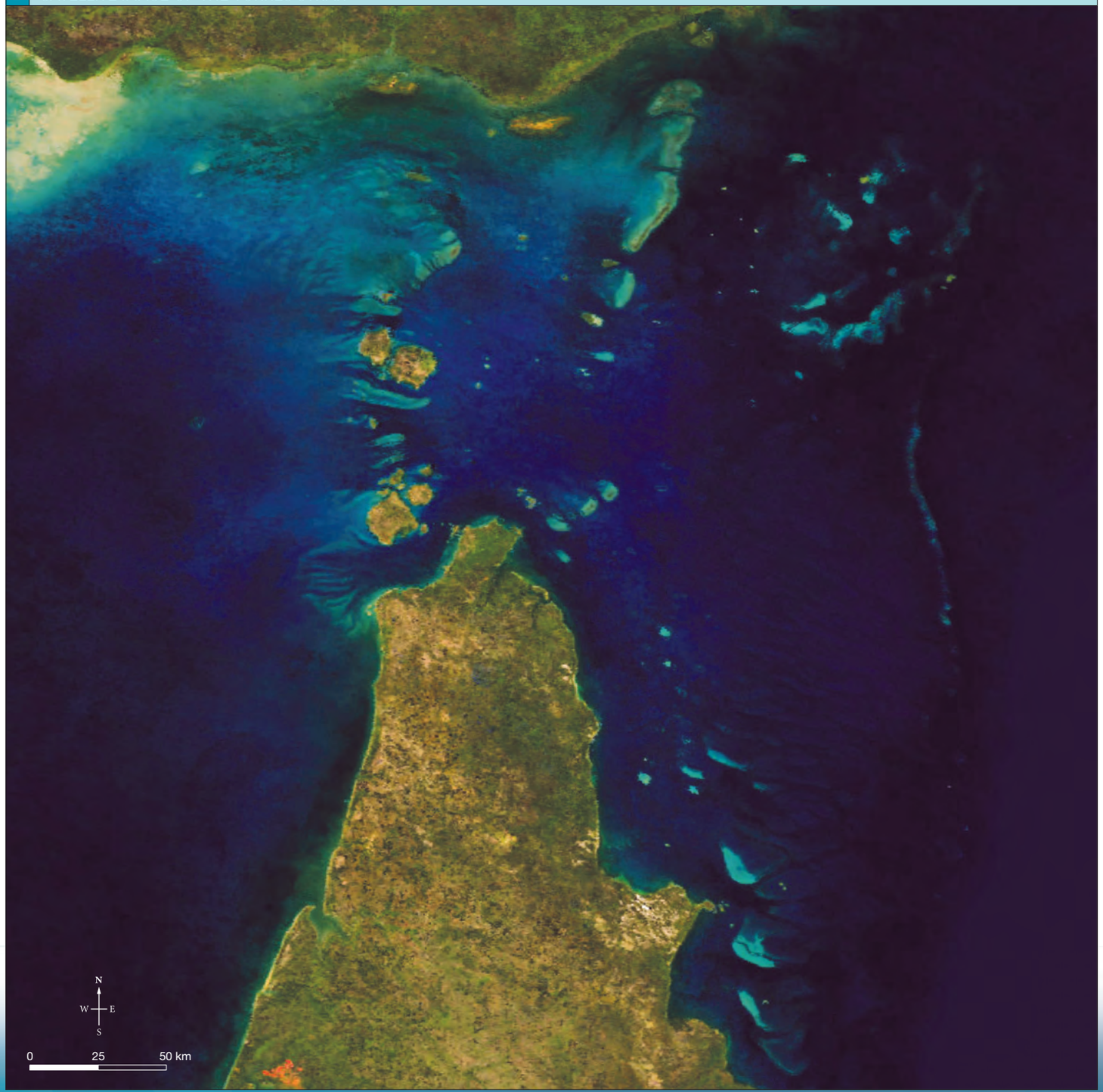
There are over 300 islands in Torres Strait, which lies between Australia's Cape York Peninsula and Papua New Guinea.

These islands vary greatly across the region, and are comprised of alluvial soils, sand and volcanic and granite peaks A B. The shallow seas (less than 40 metres deep) between the low-lying islands are home to large seagrass meadows and coral reefs, which are an extension of the Great Barrier Reef. It is also an important trade route for ships moving between the Indian and Pacific Oceans.

The region has rich fishing grounds and is home to many vulnerable species, such as turtles D. Torres Strait has an estimated population of over 12 000 dugongs, the largest in the world C.

Torres Strait Islanders have native title rights over, and strong cultural and economic links with, their land and sea country that are governed by island custom, or Ailan Kastom. Indigenous rangers based on 13 outer island communities, are involved in sustainably managing turtle and dugong habitats, traditional ecological knowledge, invasive species and marine debris. They are also involved in monitoring coral, mangrove and seagrass health.

B SATELLITE IMAGE OF THE TORRES STRAIT



Source: U.S. Geological Survey

C *Dugong grazing on sea grass*



D *A turtle being cut free from a discarded fishing net*





Queensland

GEOFACTS

Area: 1 730 648 sq km
(Australia's second largest state)

Population: 4 844 500

Population density: 2.76 per sq km

Largest city: Brisbane 2 308 700 people (D2)

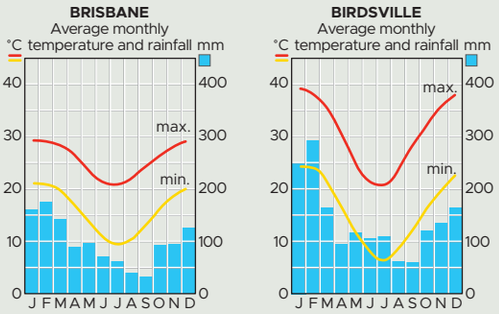
Highest mountain:
Bartle Frere 1622 m (C4)

Largest marine park:
Great Barrier Reef 344 400 sq km (C4)

Highest temperature:
Birdsville 49.5°C (A2)

Lowest temperature: Warwick –10.6°C (D2)

Highest annual rainfall:
Bellenden Ker 12 461 mm
(Australia's highest) (C4)



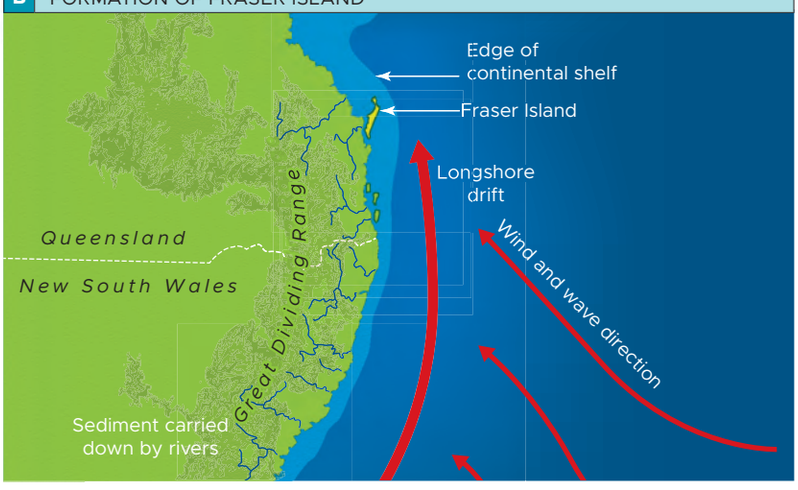
Fraser Island: the largest sand island

Fraser Island (D2) was listed as a World Heritage site in 1992 for its stunning scenery, diversity of landscapes and its formation. It is the largest sand island in the world A being 120 kilometres long and 22 kilometres wide. It is estimated that 203 cubic kilometres of sand has accumulated there. Sediment eroded from the Great Dividing Range (C3) has washed down rivers and moved northwards by coastal longshore drift B. This 'river' of sand moves an estimated 500 000 cubic metres of material per year northwards from NSW and southern Queensland. It is deposited to form several sand islands including Moreton and Fraser islands. Onshore winds have moved the sand around rocky areas and built a series of overlapping dunes as high as 240 metres A. The sand constantly moves from east to west across the island, sometimes covering vegetation with blowouts. Due to consistent rainfall, the dunes support a wide range of biodiversity with a tall eucalypt forest in the centre of the island. These trees gain nutrients from a layer of decayed vegetation and fungi (*humus*) deep in the sand. This also acts as a seal, where two dunes meet. Freshwater lakes develop above this, where rainwater cannot drain away. Over 100 freshwater 'perched' lakes are distributed high throughout the island. One of these, Lake McKenzie C is over 100 metres above sea level and 5 metres deep.

A SATELLITE IMAGE OF FRASER ISLAND



B FORMATION OF FRASER ISLAND



C *Aerial photograph of Lake McKenzie* ▼

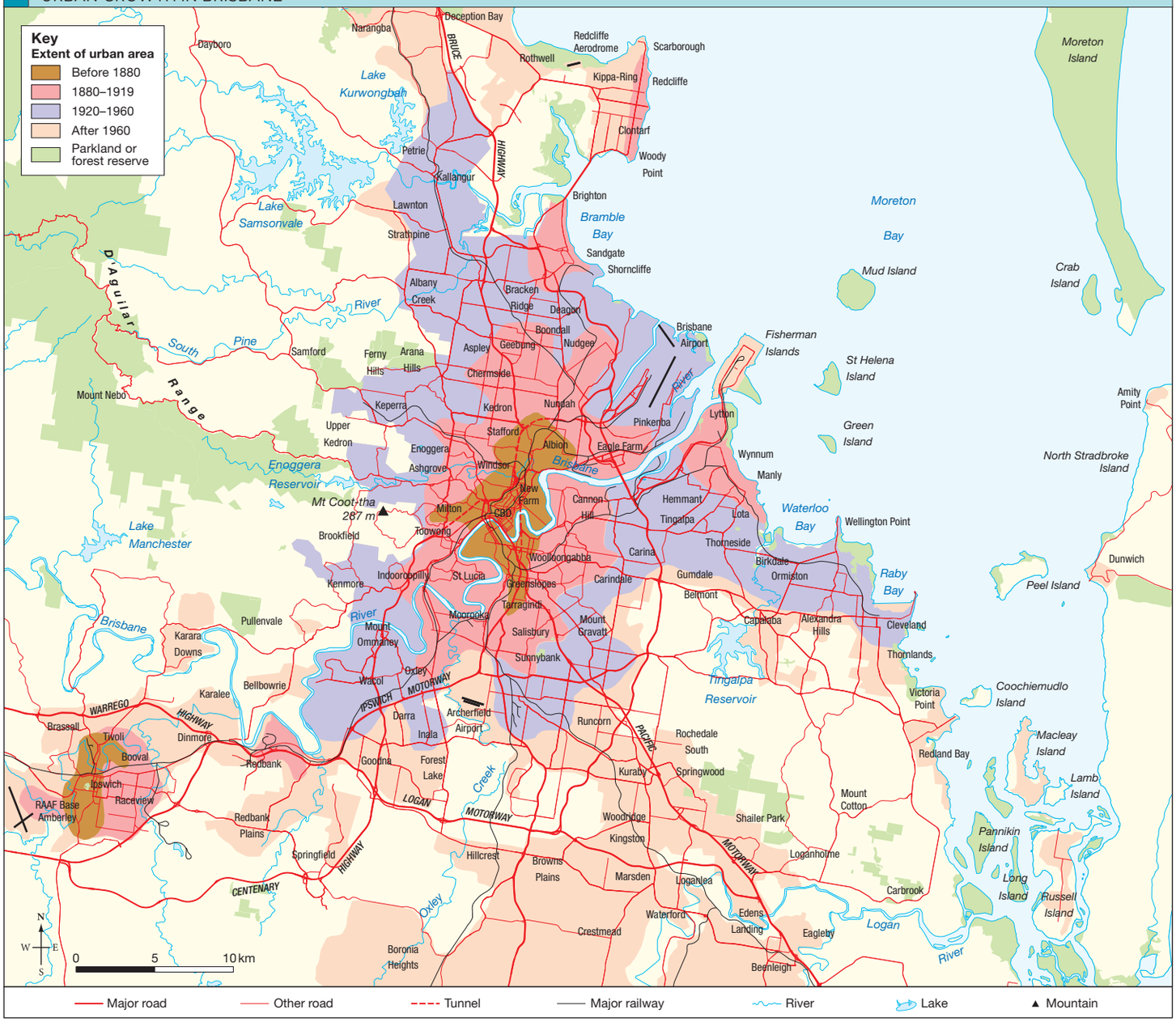


Source: Data available from the U.S. Geological Survey


Lambert Conformal Conic
1 : 10 000 000
1 centimetre on the map represents 100 kilometres on the ground.
0 100 200 300
kilometres
INDONESIA
PAPUA NEW GUINEA
Port Moresby
Merauke
Gulf of Papua
Mt Victoria 4035 m
Buna
Popondetta
Kokoda
Owen Stanley Range
Abau
Alotau
Milne Bay
D'Entrecasteaux Islands
SOLOMON SEA
Louisiade Archipelago
Torres Strait
Moa Island
Thursday Island
Cape York
Bamaga
ARAFURA SEA
Endeavour Strait
Jardine River NP
Shelburne Bay
Cape Grenville
Kutini-Payamu / Iron Range NP
Lockhart River
Weipa
Duyfken Point
Albatross Bay
Aurukun
GREAT DIVIDING RANGE
Kuta Mcllwraith Range NP
Princess Charlotte Bay
Cape Melville
Osprey Reef
CORAL SEA
Cape York Peninsula
Gulf of Carpentaria
Rinyirru Lakefield NP
Kowanyama
Mitchell River
Cooktown
Daintree NP
Cape Tribulation
Mossman
Clifton Beach
Mornington Island
Bentinck Island
Karumba
Staaten River NP
Mareeba
Cairns
Great Barrier Reef Marine Park
Bulleringa NP
Atherton
Bellenden Ker
Babinda
Bartle Frere 1622 m
Innisfail
Burketown
Normanton
Doomadgee
Boodjamulla / Lawn Hill NP
Georgetown
Gregory River
Flinders River
Norman River
Girringun NP
Tully
Dunk Island
Hinchinbrook Island
Hinchinbrook Island NP
Palm Islands
Halifax Bay
Undara Volcanic NP
Ingham
BARRIER REEF
PACIFIC OCEAN
Magnetic Island
Townsville
Ayr
Burdekin River
Barkly Tableland
Gulf Country
Northern Territory
Camooweal
Leichhardt River
Bald Hill 689 m
White Mountains NP
Charters Towers
Proserpine
Bowen
Hook Island
Whitsunday Island
Whitsunday Group
Repulse Bay
Lake Dalrymple
Collinsville
Mt Dalrymple 1300 m
Cloncurry
Julia Creek
Richmond
Hughenden
Mount Isa
Mackay
Sarina
Cape Palmerston
Shoalwater Bay
Swain Reefs
Georgina River
Mt Unbunmaroo 387 m
Winton
Muttaburra
Lake Galilee
Moranbah
Clermont
Dysart
Middlemount
Boulia
Bladensburg NP
Longreach
Emerald
Rockhampton
Yeppoon
Keppel Bay
Heron Island
Curtis Island
Tropic of Capricorn
Capricorn Group
Lady Musgrave Island
Lady Elliot Island
Diamantina NP
Barcaldine
Alpha
Blackwater
Mount Morgan
Gladstone
Tannum Sands
Simpson Desert
Queensland
Channel Country
Springsure
Moorabinda
Bedourie
Blackall
Carnarvon NP
Moura
Biloela
Diamantina River
Thomson River
Welford NP
Tambo
Consuelo Peak 1174 m
Munga-Thirri NP
Three Sisters 305 m
Idalia NP
Expedition NP
Taroom
Bundaberg
Hervey Bay
Fraser Island
Maryborough
Bilpa Morea Claypan
Birdsville
Augathella
Gayndah
Murgon
Great Sandy NP
Gympie
Noosa
Nambour
Maroochydore
Caloundra
Caboolture
Lake Yamma Yamma / Mackillop
Charleville
Mitchell
Roma
Chinchilla
Miles
Surat
Condamine River
Dalby
Oakey
Tara
Toowoomba
Brisbane
Kingston
Gatton
Beaudesert
Warwick
Gold Coast
Tweed Heads
Murwillumbah
Mt Barney 1359 m
Lismore
Cape Byron
Ballina
Casino
Kyogle
Yamba
Grafton
Inverell
Glen Innes
Tenterfield
Stanthorpe
Goondiwindi
Dirranbandi
Moree
Walgett
Brewarrina
Bourke
Barwon River
Paroo River
Warrego River
Balonne River
Culgoa Floodplain NP
Currawinya NP
Thargomindah
Cunnamulla
St George
Bulloo River
Cooper Creek
Quilpie
Eyre Creek
Lake Eyre North
Kati Thanda / Lake Eyre South
Strzelecki Desert
Tirari Desert
Innamincka
Marree
Grey Range
New South Wales
South Australia
Thrushton NP
Southwood NP
Kingaroy
Nanango
Maleny
Redcliffe
Caboolture
Yeppoon
Rockhampton
Gladstone
Bundaberg
Hervey Bay
Maryborough
Gympie
Toowoomba
Brisbane
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Quilpie
Augathella
Barcaldine
Blackall
Tambo
Alpha
Springsure
Clermont
Moranbah
Dysart
Middlemount
Proserpine
Ayr
Ingham
Georgetown
Normanton
Burketown
Camooweal
Doomadgee
Karumba
Kowanyama
Aurukun
Weipa
Cooktown
Mossman
Clifton Beach
Innisfail
Babinda
Atherton
Mareeba
Kingaroy
Nanango
Maleny
Redcliffe
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Gympie
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Murgon
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Barkly
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Simpson Desert
Channel Country
Queensland
New South Wales
South Australia
Tirari Desert
Strzelecki Desert
Kati Thanda / Lake Eyre North
Lake Eyre South
Lake Yamma Yamma / Mackillop
Bilpa Morea Claypan
Munga-Thirri NP
Three Sisters 305 m
Idalia NP
Diamantina NP
Bladensburg NP
Mt Unbunmaroo 387 m
Bald Hill 689 m
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Dirranbandi

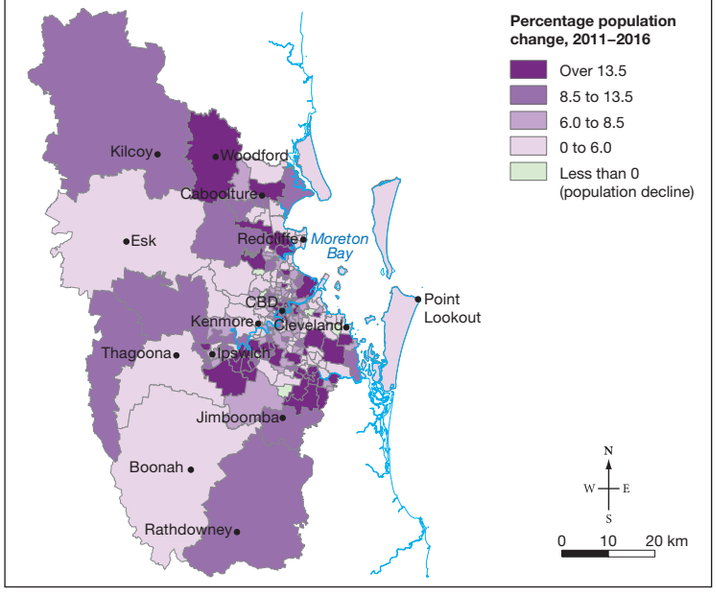
Brisbane

A URBAN GROWTH IN BRISBANE



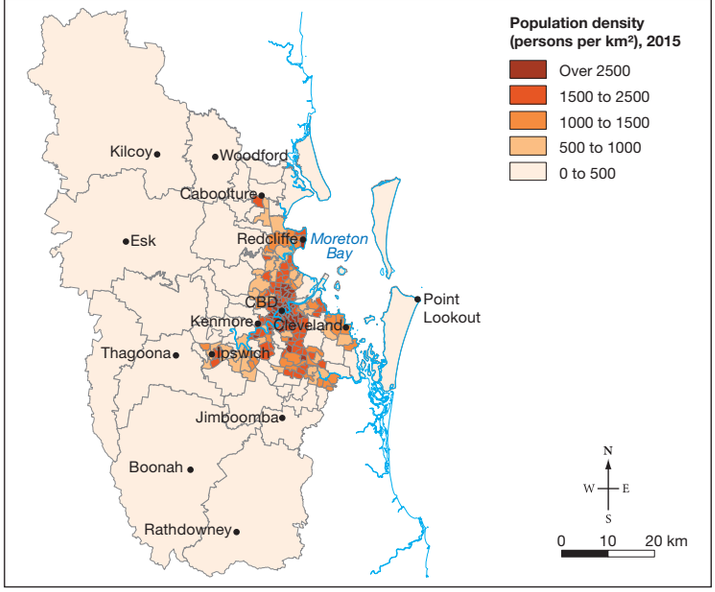
Source: MAPgraphics / ABS — Urban Centre and Locality (UCL) ASGS Edition 2011 Digital Boundaries data / OpenStreetMap (Roads)

B POPULATION CHANGE



Source: Australian Bureau of Statistics

C POPULATION DENSITY



Source: Australian Bureau of Statistics

A. Light rail between Caloundra and Maroochydore to improve regional interconnections.

B. Brisbane Metro Subway System for glider-style buses together with new busways and interchange stations linking the CBD and inner urban areas.

C. Suburban growth of Greater Springfield accommodating an extra 70 000 people by 2036.

D. Gold Coast Light Rail Stage 2 extension from Southport to Helensvale helping to reduce road traffic in the region.

E. Large-scale integrated resort development including casino, hotels, apartments, marina and retail precinct.

F. Nerang's urban expansion with a mix of high-rise and low-rise residential areas.

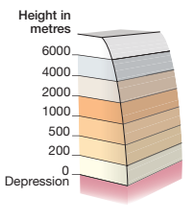
G. Conversion of an industrial area to riverside precinct for 15 000 residents and 15 000 workers.

D CHANGING BRISBANE REGION



Key

BRISBANE	Capital city
Buderim	Major city
Cooroy	Minor city
	National park
	Highway
	Major road
	Minor road
	Railway
	Built-up area
	Lake
	River
	State border
	Airport
Mt Greville 769 m ▲	Mountain



Source: Geoscience Australia and Openstreetmap

New South Wales

GEOFACTS

Area: 800 642 sq km

Population: 7 725 900 (Australia's largest)

Population density: 9.52 people per sq km

Largest city: Sydney 4 921 000 people (Australia's largest) **(G3)**

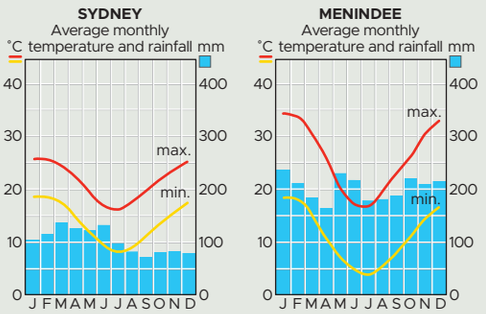
Highest mountain: Mount Kosciuszko 2228 m (Australia's highest) **(F1)**

Largest national park: Kosciuszko 6470 sq km **(F1)**

Highest temperature: Menindee 49.7°C **(C3)**

Lowest temperature: Charlotte Pass –23°C (Australia's lowest) **(F1)**

Highest annual rainfall: Tallowwood Point 4540 mm **(H4)**



The Blue Mountains: cliffs and gorges

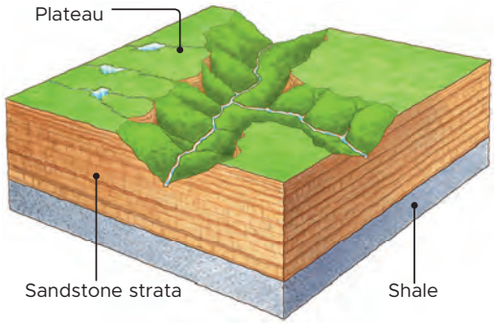
The Blue Mountains **(G3)** **A** is a mountainous region located west of Sydney. It consists of a flat-topped mountain (a plateau) and sheer cliffs. Deep and narrow gorges, up to 760 metres deep, formed as rivers and creeks eroded the sandstone plateau over thousands of years **B**. Temperate rainforests can be found in some of the sheltered gorges.

The Blue Mountains form part of the Greater Blue Mountains Area World Heritage Site **(G3)**, which was included in the World Heritage List in 2000.

A *Blue Mountains* ▼

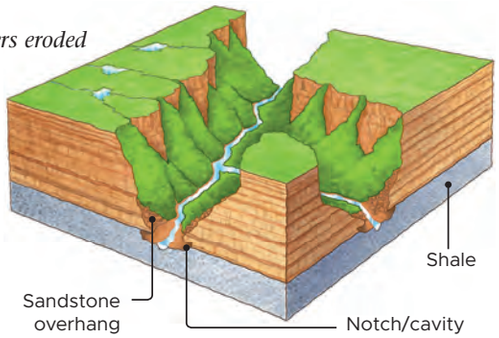


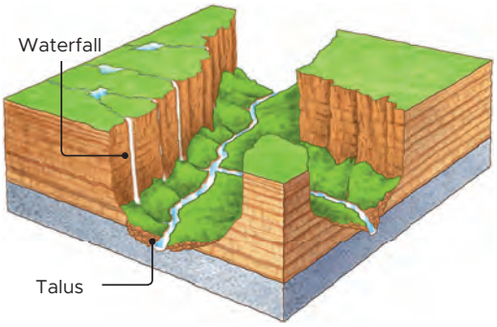
B FORMATION OF THE BLUE MOUNTAINS



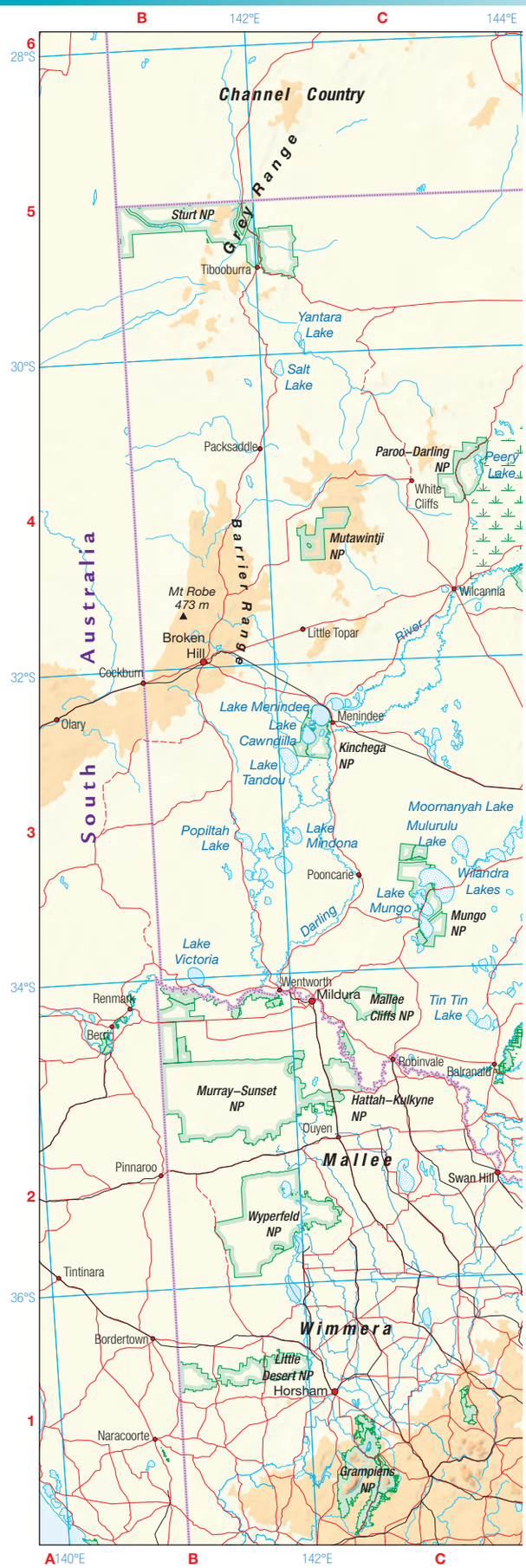
◀ *Between 250 and 280 million years ago, about 500-metre layers of shales, siltstones and mudstones were laid by streams when they reached a shallow sea. Then, about 250 and 170 million years ago, large rivers deposited a 300-metre thick layer of sand on top of the shales. These layers were formed into sandstone by heat and pressure.*

As they flowed across the plateau, creeks and rivers eroded through the plateau. The broken down sand and silt in the river water helped scour deeper into the plateau. When the rivers reached the shale layer they cut down even more easily as shale is relatively soft. Notches, or cavities, formed and undermined the more resistant sandstone. ▶





◀ *The sandstone overhangs broke off and collapsed, leaving rubble (talus). Shale provides soils on which vegetation can grow. Waterfalls form where they flow over harder sandstone.*

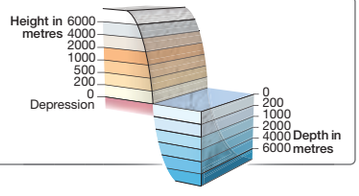




Source: Department of the Environment and Energy, Geoscience Australia © Commonwealth of Australia

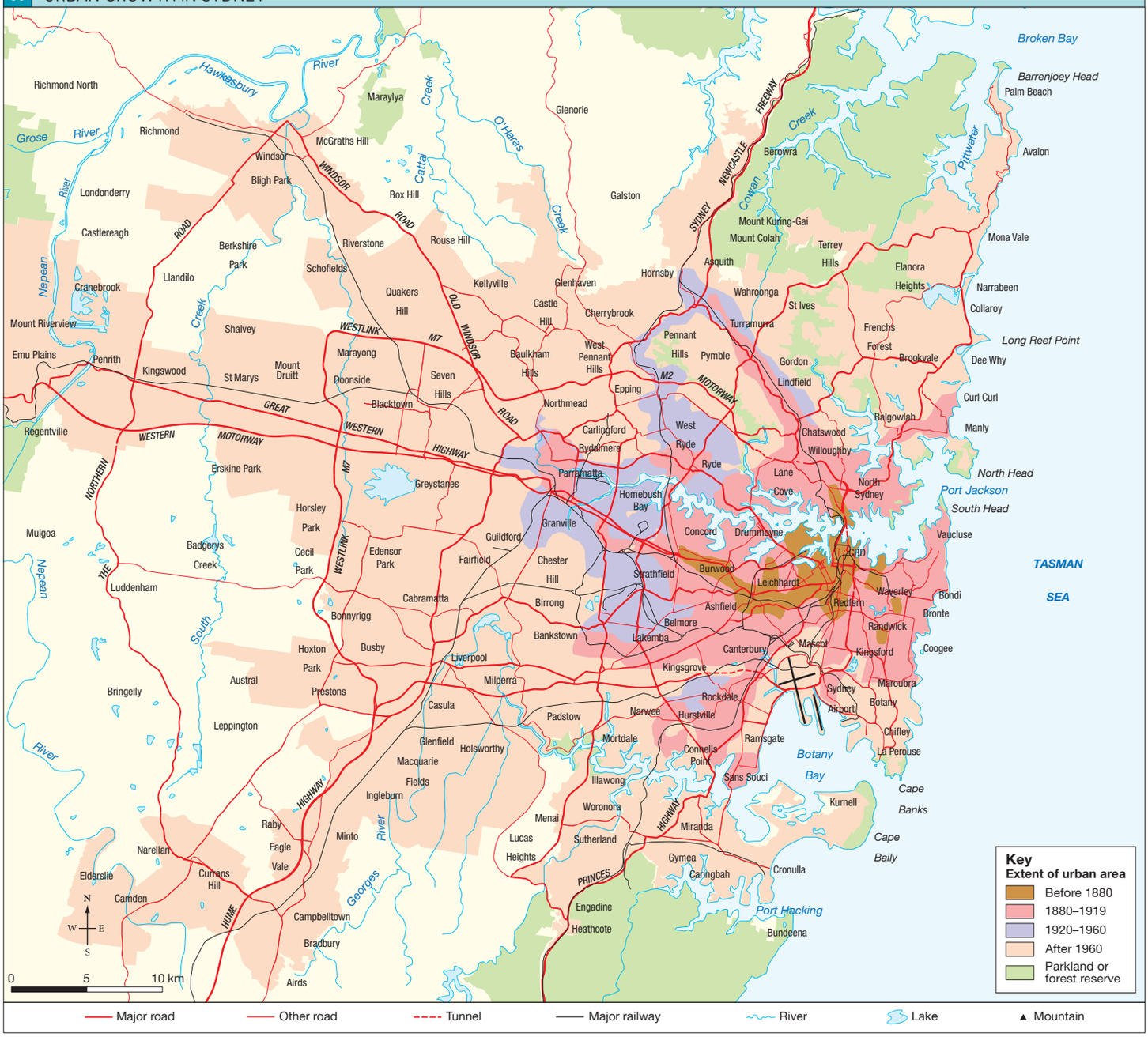
Key

- Lake; Dry lake
- River
- Wetland
- Mt Robe 473 m — Mountain
- New South Wales — State/territory name
- State/territory border
- State/territory capital
- Country capital
- Sydney — Over 1 000 000 people
- Newcastle — 100 000 to 500 000 people
- Maitland — 50 000 to 100 000 people
- Dubbo — 10 000 to 50 000 people
- Leeton — 5000 to 10 000 people
- Kyogle — Under 5000 people
- Road
- Railway
- National park



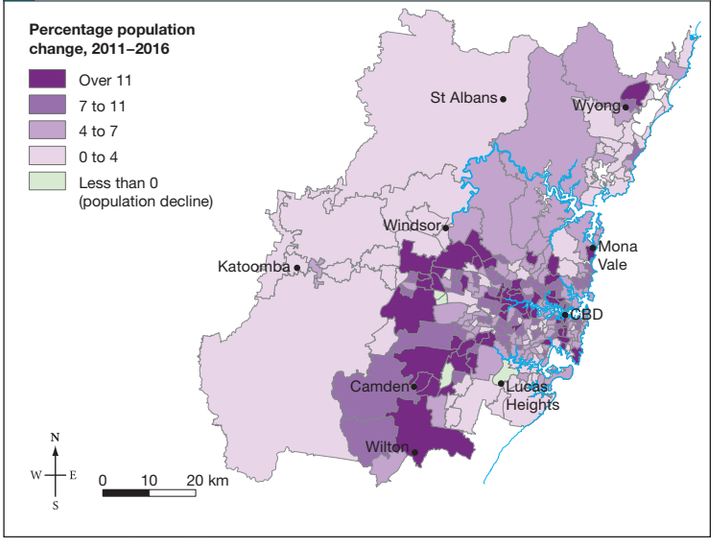
Sydney

A URBAN GROWTH IN SYDNEY



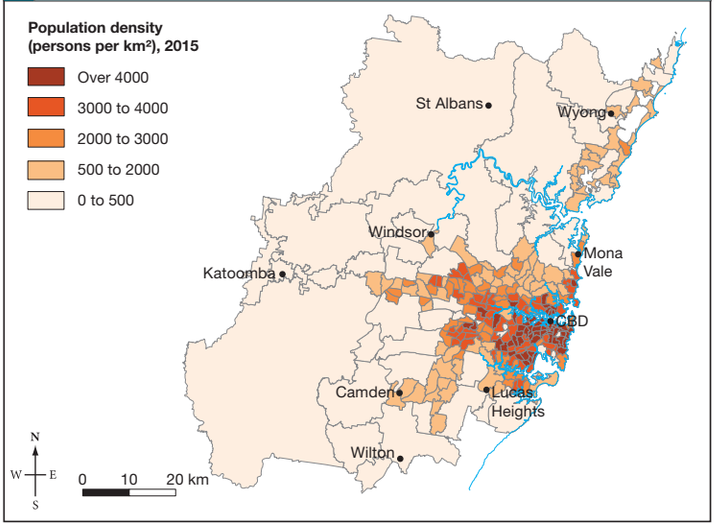
Source: MAPgraphics / ABS — Urban Centre and Locality (UCL) ASGS Edition 2011 Digital Boundaries data / OpenStreetMap (Roads)

B POPULATION CHANGE



Source: Australian Bureau of Statistics

C POPULATION DENSITY



Source: Australian Bureau of Statistics

A. By 2060 the Newcastle area could add another 300 000 people with an economy based on services and food processing.

B. Ingleside urban developments will be within a sustainable environment of ecological corridors and conserved landscapes.

C. Inner Sydney is rapidly transforming with higher density apartments and rebuilding, and renewal of older retail areas.

D. Badgery's Creek is the site of Sydney's second international airport and requires extensive linking infrastructure.

E. South West Priority Growth Centre with upgrades to rail and road links, employment and community services for a growing suburban population.

F. Revitalisation of Wollongong with increased service and recreation functions.

G. Gosford's expansion with an education and health focus will occur with environmental safeguards to maintain its existing characteristics.

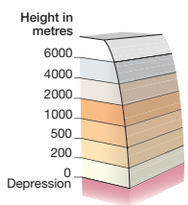
H. Bays Precinct development of government land and waterways into an area of enterprise, activity and beautiful spaces.

I. Eveleigh Rail Project rail corridor development with diverse housing, community infrastructure and low car use reflecting the existing population and future environmental sustainability aims.

Key

SYDNEY Capital city
Gosford Major city
Terrigal Minor city
National park
Highway
Major road
Minor road
Railway
Built–up area
Lake
River
Airport
Mt Olive 309 m ▲ Mountain

Elevation





Source: Geoscience Australia and Openstreetmap

Australian Capital Territory

GEOFACTS

Area: 2358 sq km

Population: 395 200

Largest city:
Canberra 381 488

Population density:
73.3 people per sq km (Highest of Australia's states and territories)

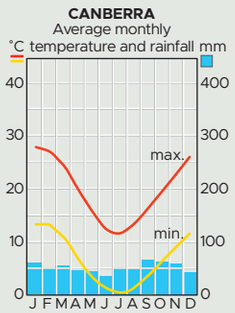
Largest national park:
Namadgi 1059 sq km **(C3)**

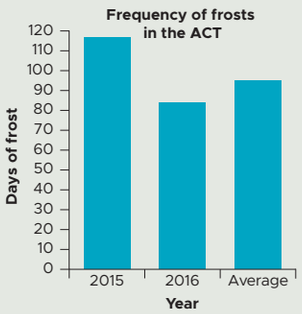
Highest temperature:
Canberra 42.8°C **(D5)**

Lowest temperature:
Mount Gudgenby –15°C **(C2)**

Highest annual rainfall:
Bendora Dam 1831 mm **(B4)**

Highest mountain:
Bimberi Peak 1912 m **(B3)**

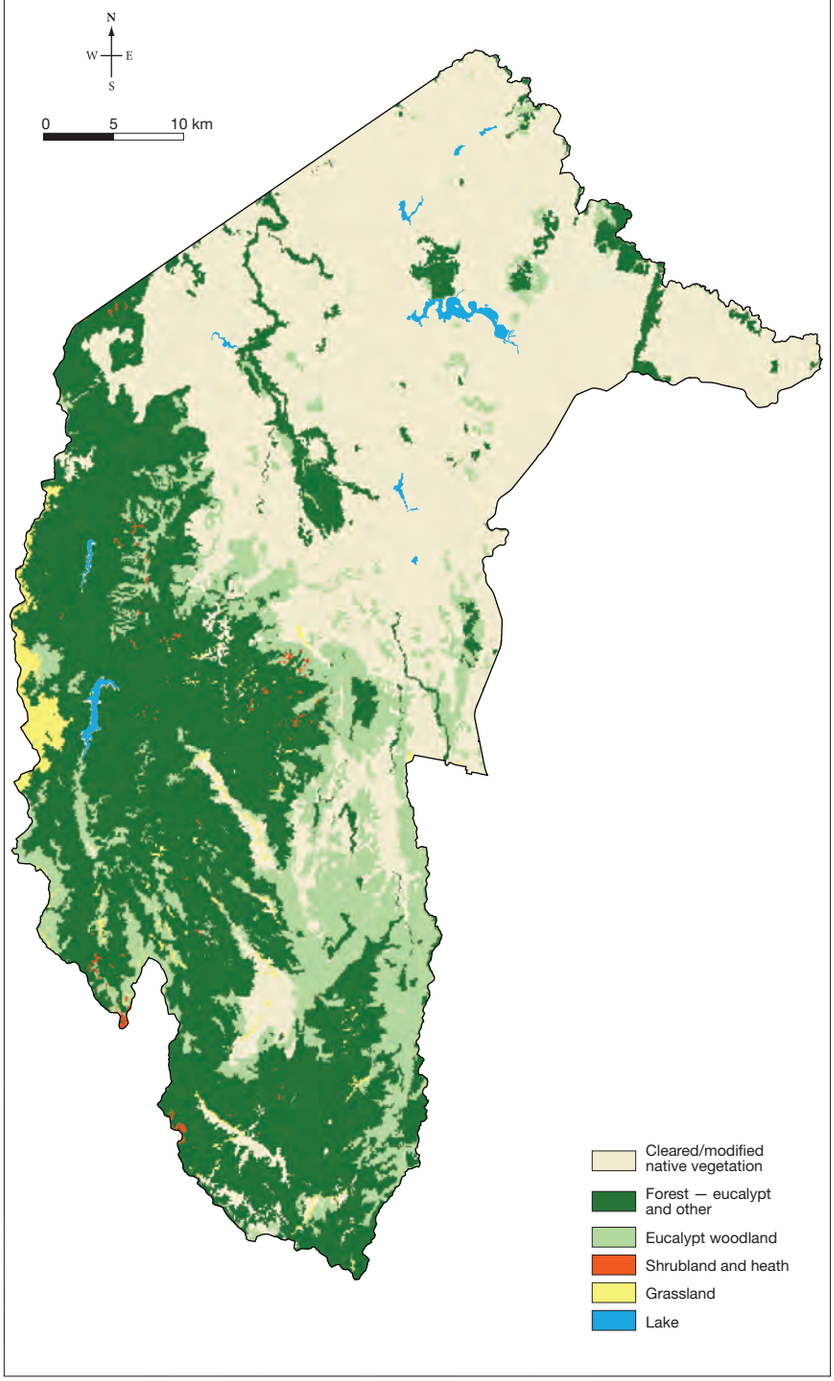




Sub-alpine forests

The Australian Capital Territory (ACT) was settled in the early 1830s when the undulating, milder north-eastern region was largely cleared for sheep grazing. The Molongolo and Murrumbidgee rivers attracted graziers. The southern region — consisting of the Brindabella, Tidbinbilla and Clear Ranges — is included in the Namadji National Park **(C3)** and retains its extensive eucalyptus woodland and forest biomes, with around 50 per cent of original vegetation remaining **A**. This is high and rugged country with limited access. On the highest peaks where soil is thin and acidic, tussock grassland and sub-alpine heaths are found. Here the climate is most harsh, with frequent snow in winter. At a lower altitude, there are snow gums and sub-alpine forest **B**. Lower altitude slopes support open woodland. The cleared land (740 square kilometres) has consistent but low rainfall all year and frequent frosts **C**.

A VEGETATION COVER IN THE ACT



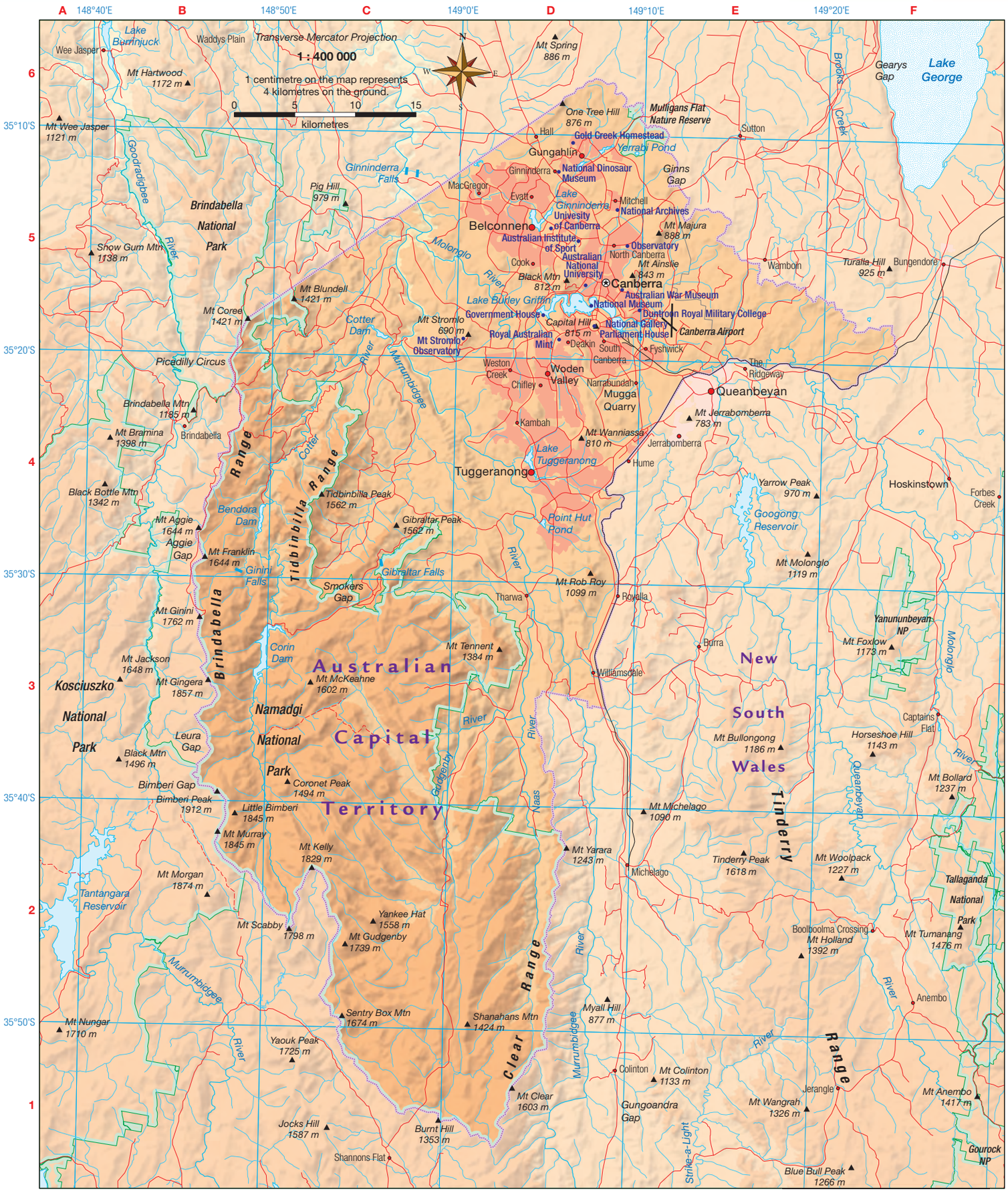
Source: MAPgraphics / Australian Government, Department of Environment and Energy

B *Mountain forests in the Namadji National Park* ▼



C *Heavy frost mainly restricts agricultural production to grazing.* ▼





Source: Department of the Environment and Energy, Geoscience Australia © Commonwealth of Australia

Key

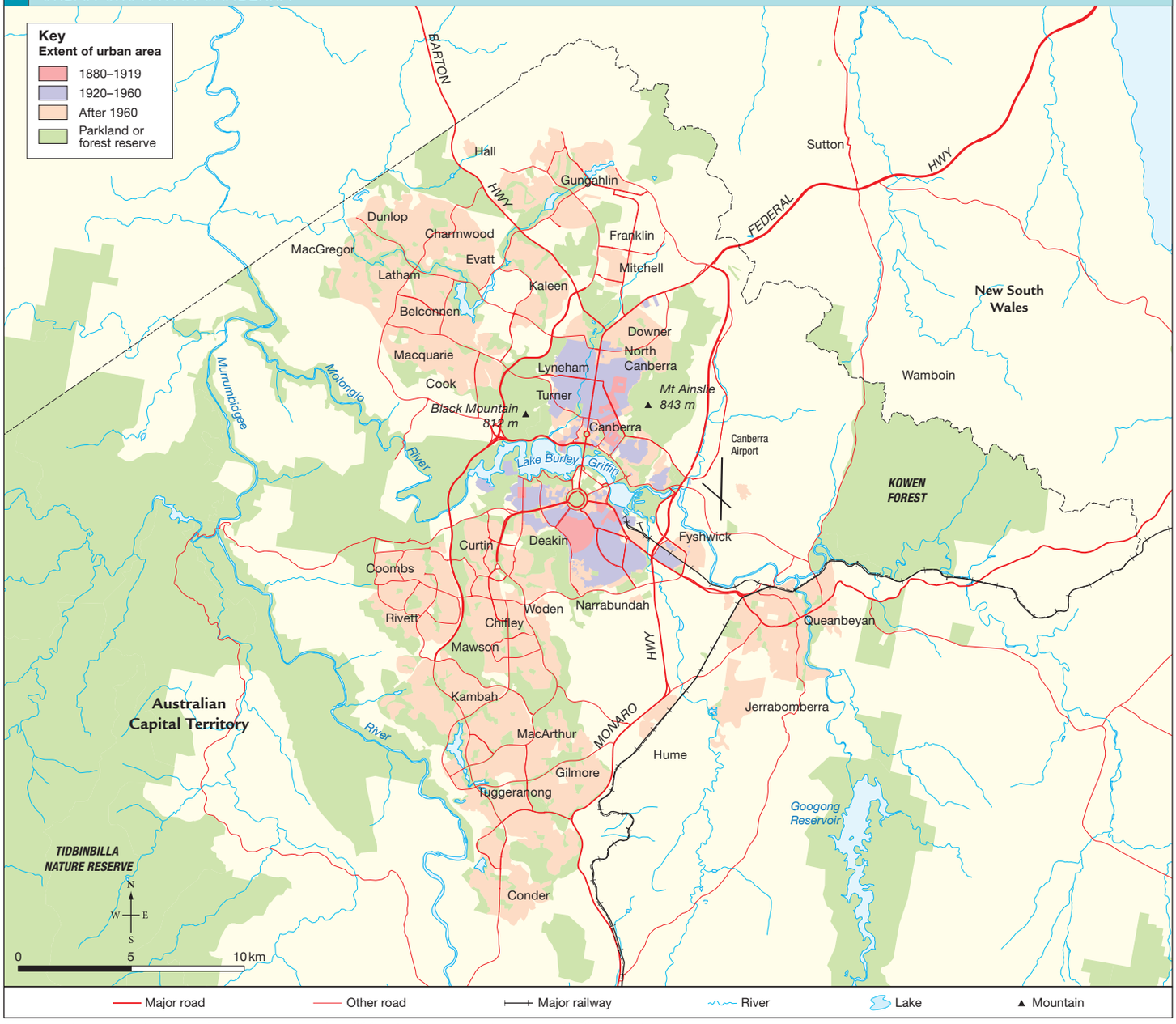
- Lake; Dry lake
- River
- Wetland
- Mountain (Mt Tennent 1384 m)
- Country capital
- State/territory name (New South Wales)
- State/territory border
- Place of interest
- Urban area
- Canberra — 100 000 to 500 000 people
- Queanbeyan — 50 000 to 100 000 people
- Woden Valley — 10 000 to 50 000 people
- Jerrabomberra — 5000 to 10 000 people
- Michelago — Under 5000 people
- Road
- Railway
- Park or reserve

Height in metres: 6000, 4000, 2000, 1000, 500, 200, 0, Depression

Depth in metres: 0, 200, 1000, 2000, 4000, 6000

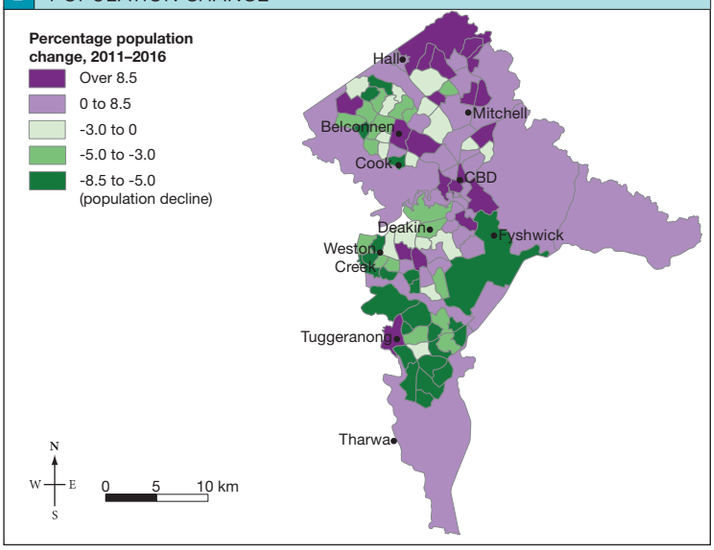
Canberra

A URBAN GROWTH IN CANBERRA



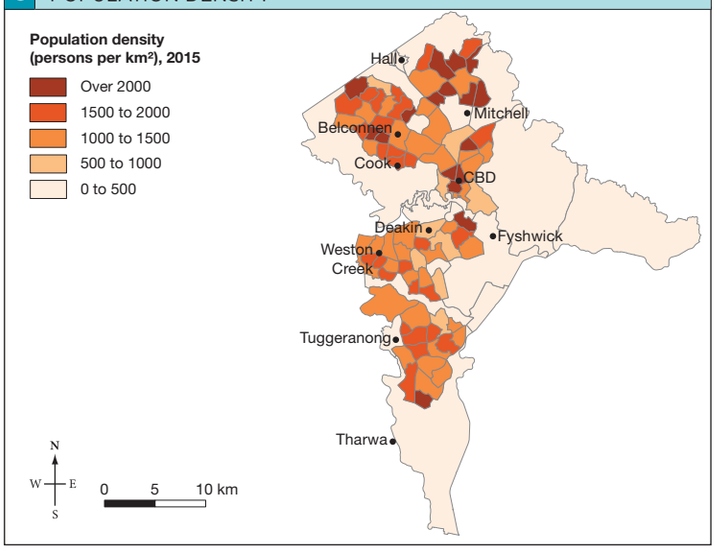
Source: MAPgraphics / ABS – Urban Centre and Locality (UCL) ASGS Edition 2011 Digital Boundaries data / OpenStreetMap (Roads)

B POPULATION CHANGE



Source: Australian Bureau of Statistics

C POPULATION DENSITY



Source: Australian Bureau of Statistics

D SATELLITE IMAGE OF CANBERRA



1. Australian National University
2. Australian War Memorial
3. Captain Cook Memorial Water Jet
4. Commonwealth Park
5. Carillon (belltower)
6. Blundell's Farmhouse
7. Lake Burley Griffin
8. National Library
9. National Science and Technology Centre
10. High Court
11. Australian National Gallery
12. Old Parliament House
13. Canberra Nature Park
14. Prime Minister's Lodge
15. Parliament House
16. Jewish Memorial Centre
17. Central Business District
18. Australian National Botanic Gardens

Source: Geoimage Pty Ltd

Victoria

GEOFACTS

Area: 227 416 sq km

Population: 6 068 000

Population density: 6.11 people per sq km

Largest city: Melbourne 4 529 000 people **(D2)**

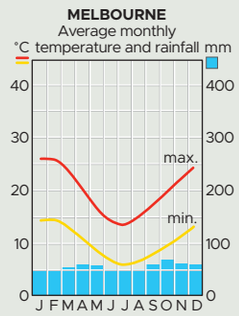
Highest mountain: Mount Bogong 1986 m **(E2)**

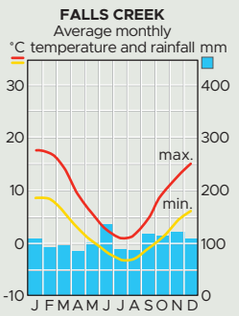
Largest national park: Alpine 6420 sq km **(E2)**

Highest temperature: Hopetoun 48.8°C **(C3)**

Lowest temperature: Falls Creek –11.7°C **(E2)**

Highest annual rainfall: Falls Creek 3739 mm **(E2)**

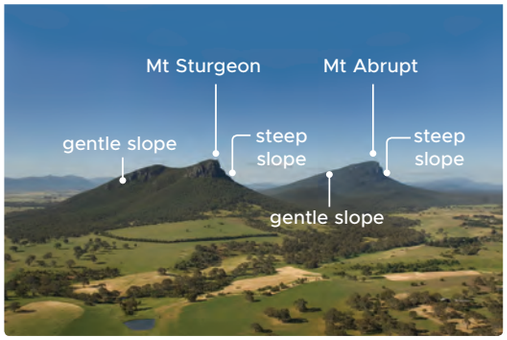




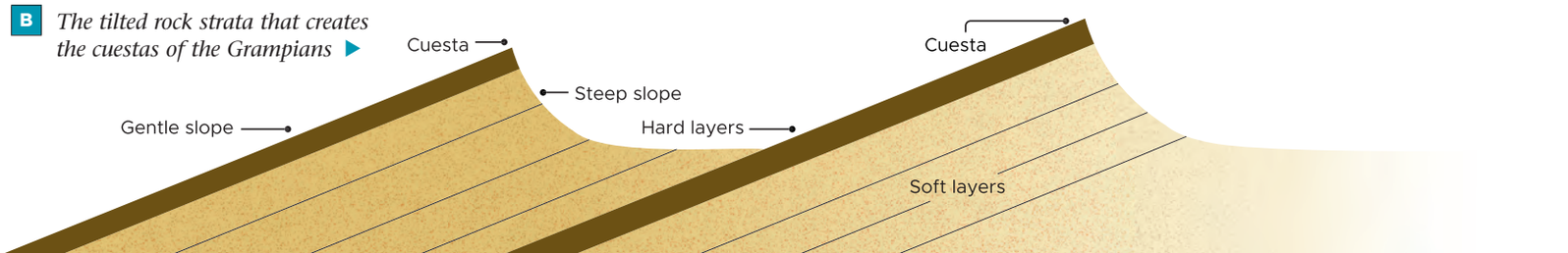
The Grampians mountain range

The Grampians **(C2)** are composed of three jagged sandstone mountain ranges, located north of the flat volcanic plains of western Victoria **A**. They are made up of different layers of sediments deposited in an ancient seabed that covered the region over 430 million years ago. Over time, the layers have been compressed, folded and tilted by intense pressure. Continual erosion of the softer rock layers has created the distinctive landform features of a *cuesta*, a series of mountains with a gentle slope on one side and a cliff or escarpment on the other side **A** **B**.

A *The distinctive cuesta landforms of the Grampians, also known by its Indigenous name, Gariwerd* ▼



B *The tilted rock strata that creates the cuestas of the Grampians* ▶



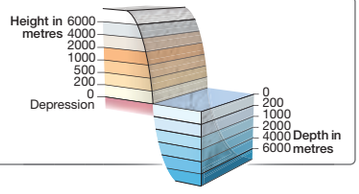




Source: Department of the Environment and Energy, Geoscience Australia © Commonwealth of Australia

Key

- Lake; Dry lake
- River
- Wetland
- Mt Baw Baw 1566 m — Mountain
- Victoria — State/territory name
- State/territory border
- State/territory capital
- Melbourne — Over 1 000 000 people
- Geelong — 100 000 to 500 000 people
- Bendigo — 50 000 to 100 000 people
- Horsham — 10 000 to 50 000 people
- Ararat — 5000 to 10 000 people
- Beechworth — Under 5000 people
- Road
- Railway
- National park



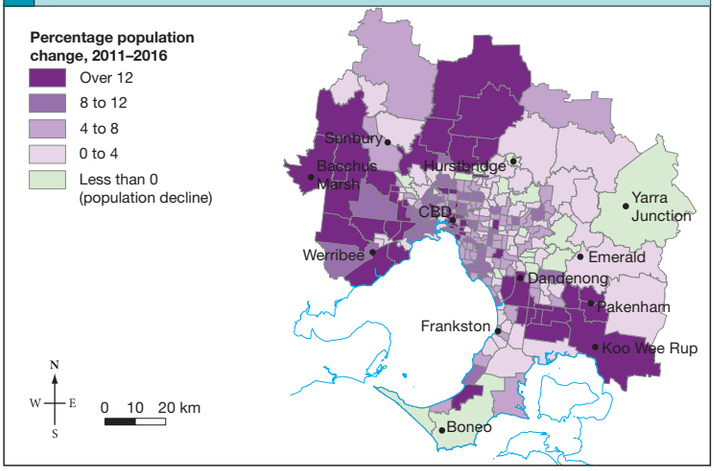
Melbourne

A URBAN GROWTH IN MELBOURNE



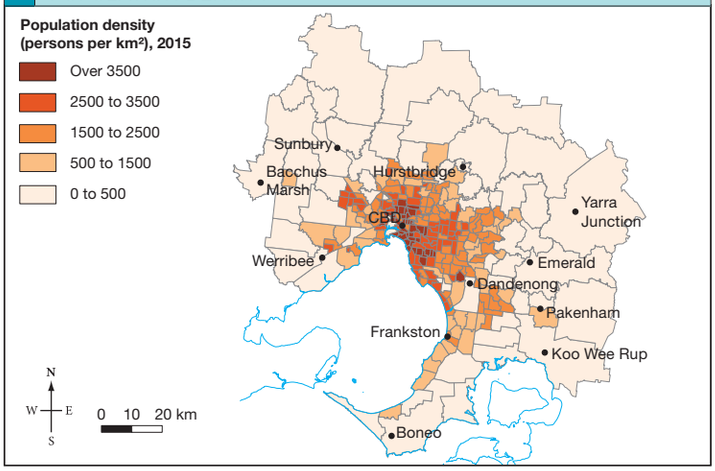
Source: MAPgraphics / ABS — Urban Centre and Locality (UCL) ASGS Edition 2011 Digital Boundaries data / OpenStreetMap (Roads)

B POPULATION CHANGE



Source: Australian Bureau of Statistics

C POPULATION DENSITY



Source: Australian Bureau of Statistics

A. Urban expansion into the Bellarine Peninsula taking advantage of coastal locations and proximity to Geelong.

B. Rapid infill development of western suburbs necessitating new transport links and expanded retail and service centres.

C. Inner suburban and CBD Metro rail link between South Yarra and Kensington to reduce commuter times and road traffic congestion.

D. Rezoning of farming land for 17 new suburbs to be created.

E. Fishermans Bend urban renewal: a 35-year scheme of four new neighbourhoods, 80 000 residents and 60 000 jobs.



Source: Geoscience Australia and Openstreetmap

Key

MELBOURNE	Capital city	Highway	Built-up area	Airport	
Geelong	Major city	Major road	Lake	*Mt Ritchie 1259 m* ▲	Mountain
Melton	Minor city	Minor road	River		
	National park	Railway			

Height in metres: 6000, 4000, 2000, 1000, 500, 200, 0, Depression



Tasmania

GEOFACTS

Area: 68 410 sq km (Australia's smallest state)

Population: 519 100 (Australia's lowest)

Population density: 7.55 per sq km

Largest city: Hobart 221 000 people **(E2)**

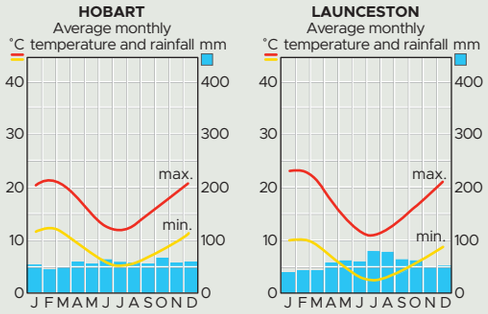
Highest mountain: Mount Ossa 1617 m **(D3)**

Largest national park: Southwest 6183 sq km **(D1)**

Highest temperature: Scamander 42.2°C **(F3)**

Lowest temperature: Tarraleah –13°C **(D2)**

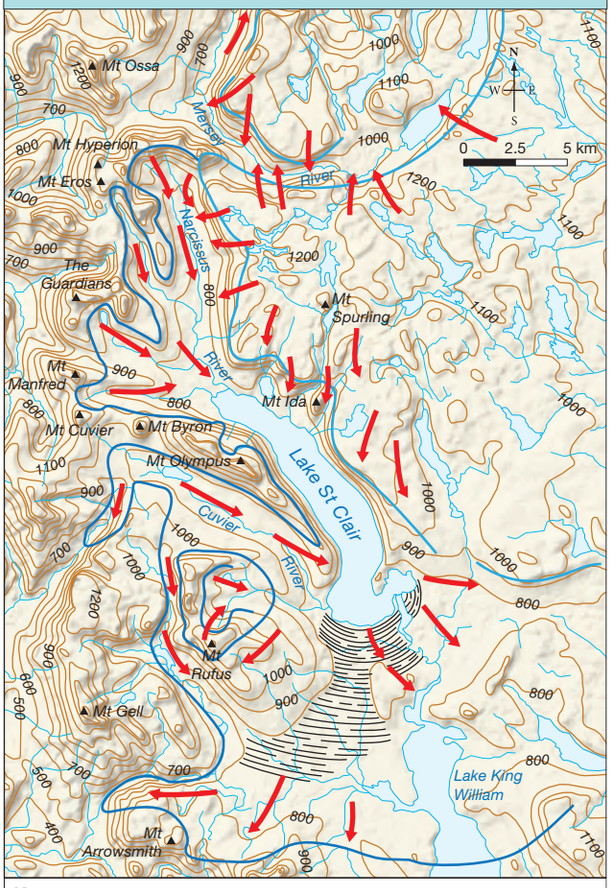
Highest annual rainfall: Lake Margaret 4504 mm **(C3)**



Tasmania's glaciated landscape

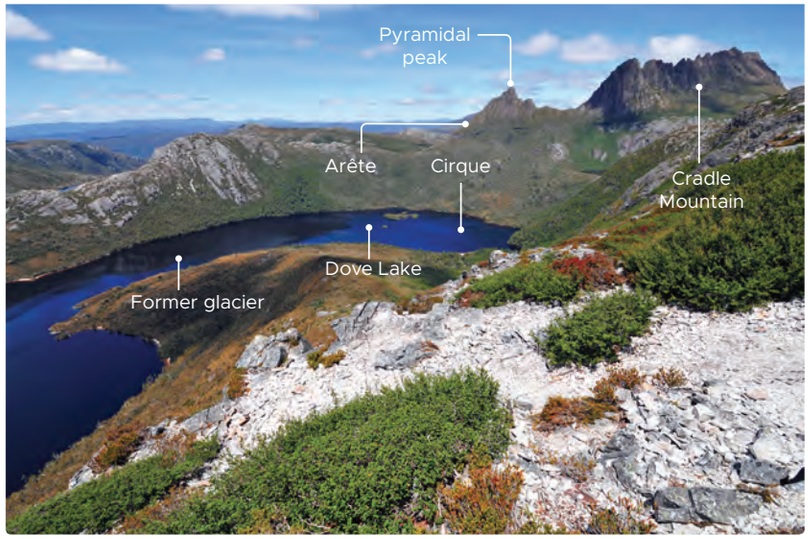
The distinctive landforms of the Cradle Mountain–Lake St Clair region **(C3)** have been shaped by moving ice. There have been three periods of glaciation over the past 2 million years, the last occurring 20 000 years ago and ending 8000–12 000 years ago. During this time more than 4000 square kilometres of Tasmania was covered by a single ice cap. Over thousands of years, snow accumulated and compressed to form glacial ice **A**. Under the influence of gravity, glaciers, or rivers of ice, slowly carved out unique landforms such as cirques and arêtes **B**. Large volumes of rock were carved out by the glaciers, pushed along and eventually deposited as rocky moraines as the ice slowly retreated. After retreating, meltwater filled the ice-carved depressions to form lakes, while arêtes appear as sharp ridges and exposed bedrock appears smooth after being eroded by moving ice and rock **C**.

A TOPOGRAPHIC MAP EXTRACT OF FORMER GLACIERS AROUND LAKE ST CLAIR

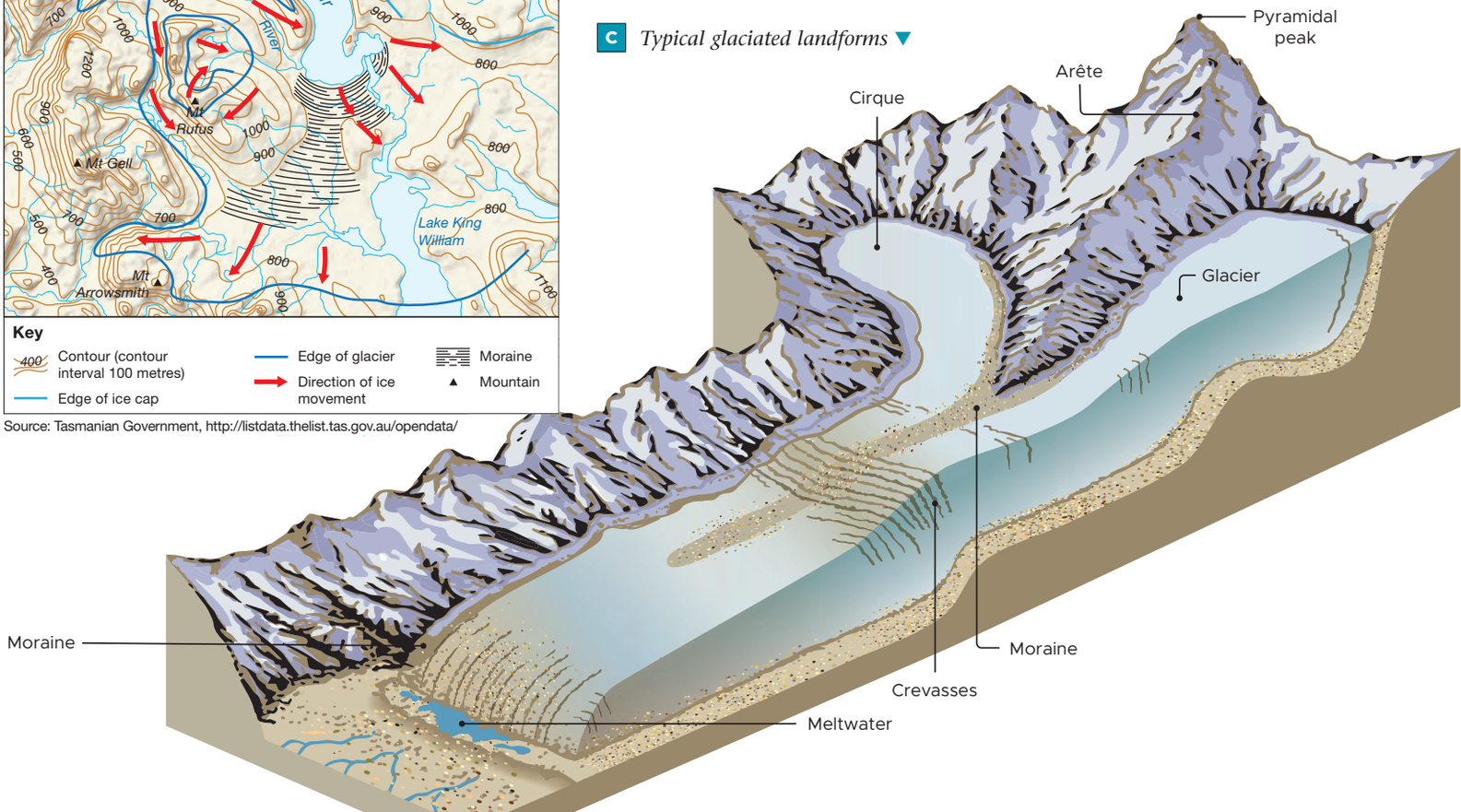


Source: Tasmanian Government, http://listdata.thelist.tas.gov.au/opendata/

B *The glaciated landscape of Cradle Mountain* ▼



C *Typical glaciated landforms* ▼





Source: Department of the Environment and Energy, Geoscience Australia © Commonwealth of Australia

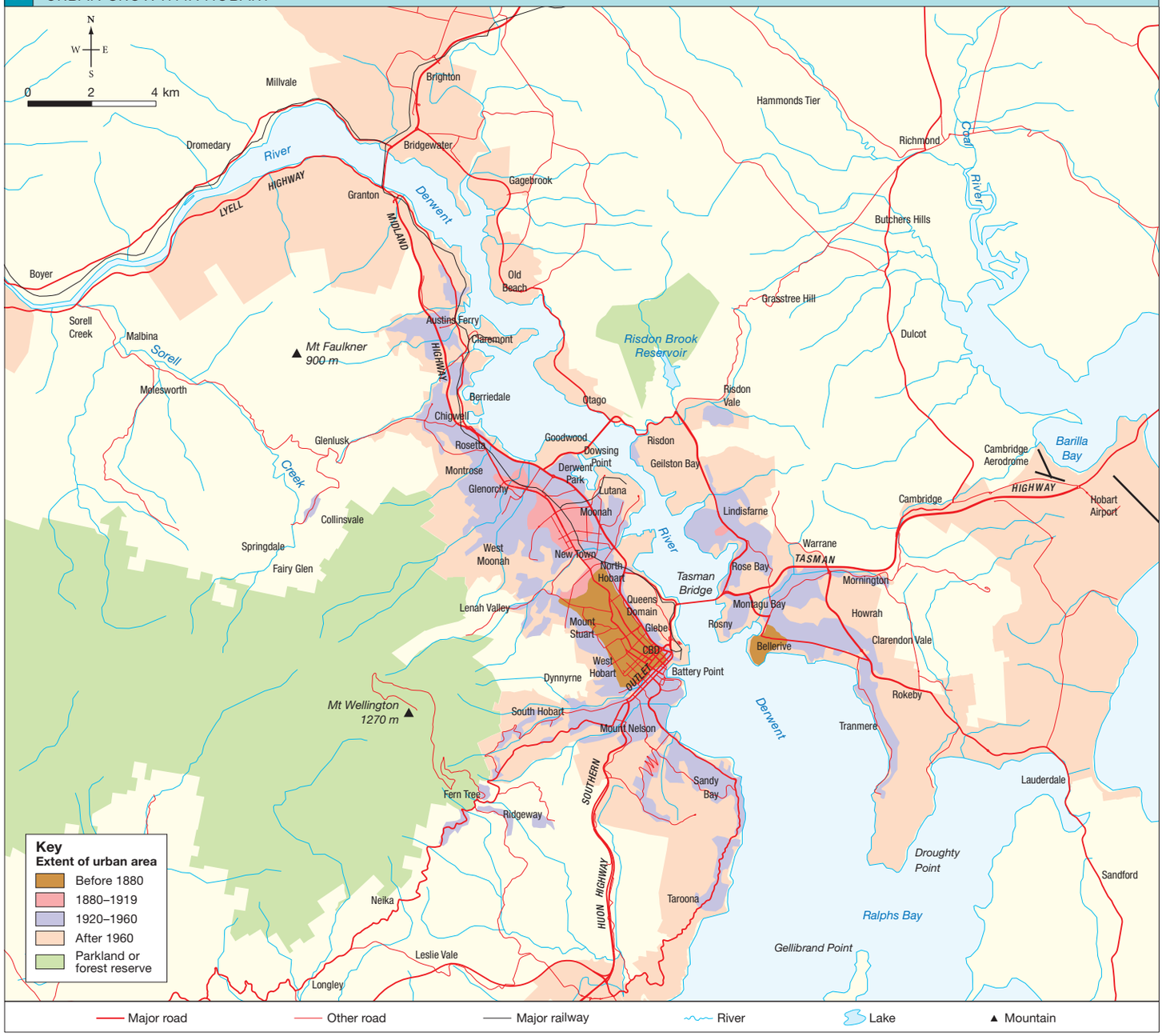
Key

- Lake
- River
- Mt Wellington 1270 m ▲ Mountain
- Tasmania — State/territory name
- State/territory border
- State/territory capital
- Launceston ■ 100 000 to 500 000 people
- Devonport ● 10 000 to 50 000 people
- Wynyard ● 5000 to 10 000 people
- Queenstown ● Under 5000 people
- Road
- Railway
- National park

Height in metres: 6000, 4000, 2000, 1000, 500, 200, 0, Depression
Depth in metres: 0, 200, 1000, 2000, 4000, 6000

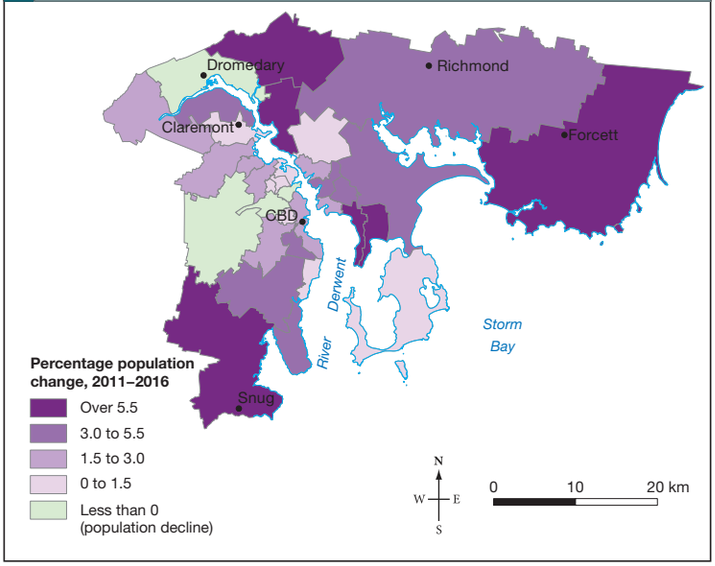
Hobart

A URBAN GROWTH IN HOBART



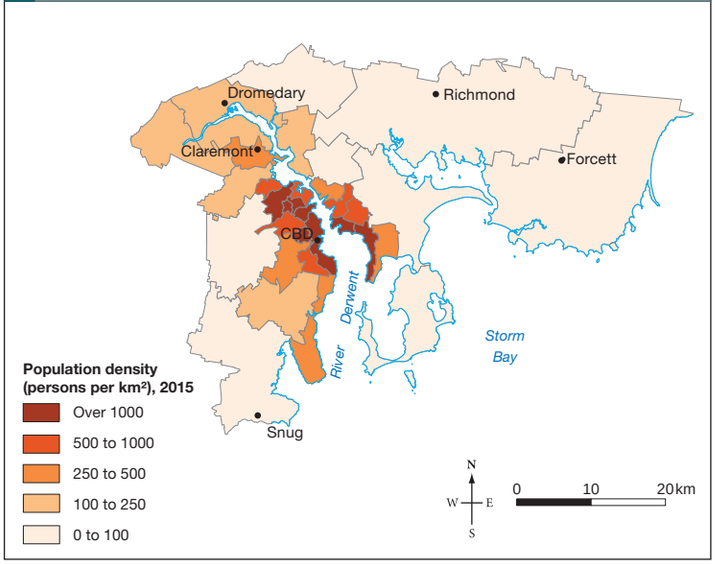
Source: MAPgraphics / ABS — Urban Centre and Locality (UCL) ASGS Edition 2011 Digital Boundaries data / OpenStreetMap (Roads)

B POPULATION CHANGE



Source: Australian Bureau of Statistics

C POPULATION DENSITY



Source: Australian Bureau of Statistics

D CHANGING HOBART REGION

A. Transforming Hobart requires an upgrade of community facilities and open spaces to attract more people for work and recreation.

B. Wellington Park–One Mountain infrastructure upgrade to improve visitor experience and protect heritage sites.

C. Stage 1 Light Rail linking Glenorchy and Moonah; Stage 2 linking Bridgewater–Brighton–Claremont will help reduce commuter times into central Hobart and relieve traffic congestion.

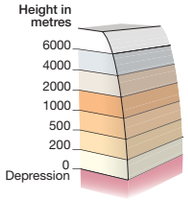
D. Redevelopment to promote inner-city living with a major events facility, community infrastructure and apartments.

E. Salamanca precinct to be revitalised with retail area, hotel and apartments.



Key

HOBART	Capital city
Sorell	Major city
Cygnet	Minor city
	National park
	Highway
	Major road
	Minor road
	Railway
	Built-up area
	Lake
	River
	Airport
Mt Faulkner 901 m ▲	Mountain



Source: Geoscience Australia and Openstreetmap

South Australia

GEOFACTS

Area: 983 482 sq km

Population: 1 708 200

Population density: 1.73 people per sq km

Largest city: Adelaide 1 316 800 people **(G3)**

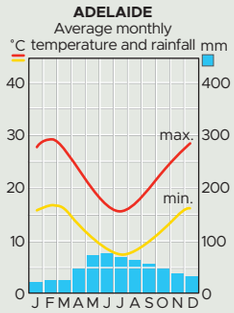
Highest mountain: Mount Woodroffe 1435 m **(C7)**

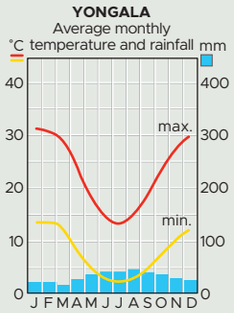
Largest national park: Kati-Thanda / Lake Eyre 13 488.73 sq km **(F6)**

Highest temperature: Oodnadatta 50.7°C **(E7)**

Lowest temperature: Yongala –8.2°C **(G4)**

Highest annual rainfall: Aldgate 1853 mm **(G3)**





Flinders Ranges: semi-arid mountain ranges

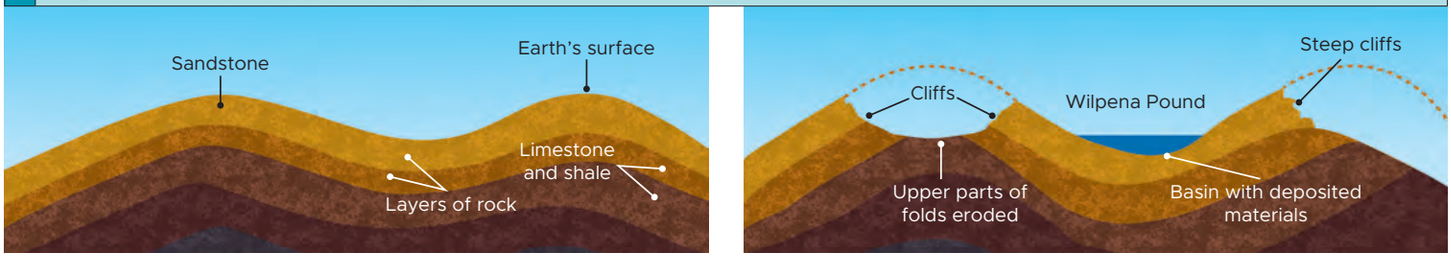
Flinders Ranges **(G5)** is the largest mountain range in South Australia, stretching over 430 kilometres from Port Pirie **(G4)** to Lake Callabonna **(H6)** **A**.

Between 500 and 1000 million years ago, folding produced the upland areas of Flinders Ranges. Tremendous pressures bent the rock into a hollow, or pound, with ranges on each side. Since then the ranges, the upper parts of these folds, have been eroded away, producing Wilpena Pound **B** **C**.

A *Flinders Ranges* ▼



B THE FORMATION OF WILPENA POUND



C *Wilpena Pound* ▼

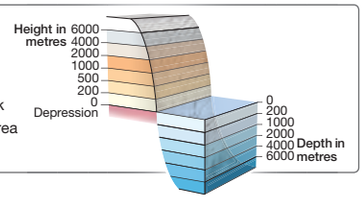




Source: Department of the Environment and Energy, Geoscience Australia © Commonwealth of Australia

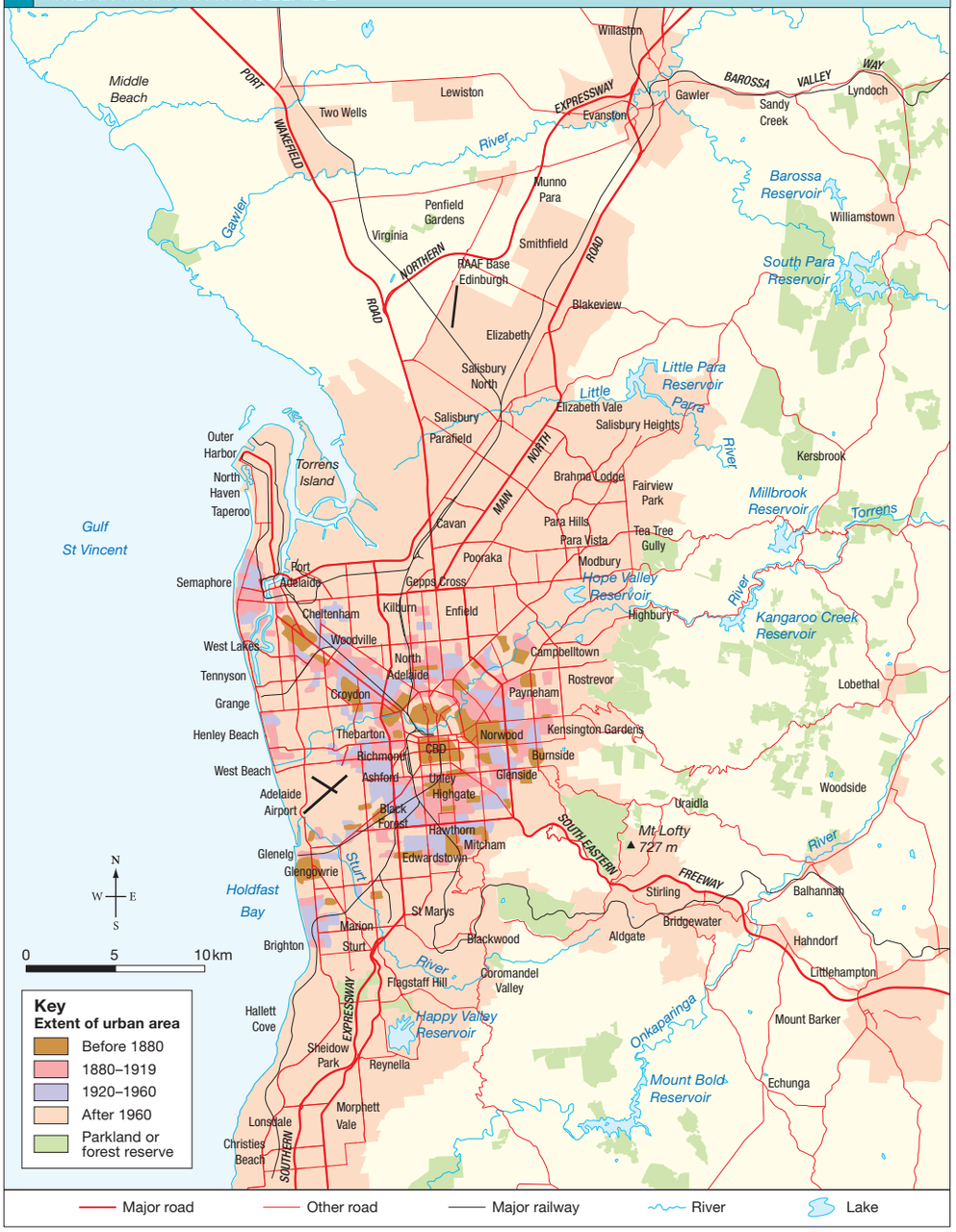
Key

- Lake; Dry lake
- River
- *Mt Woodroffe 1435 m* ▲ Mountain
- *−15 m* ▼ Lowest point
- South Australia — State/territory name
- State/territory border
- State/territory capital
- **Adelaide** — Over 1 000 000 people
- Whyalla — 10 000 to 50 000 people
- Strathalbyn — 5000 to 10 000 people
- Pinnaroo — Under 5000 people
- Road
- Track
- Railway
- National park
- Prohibited area



Adelaide

A URBAN GROWTH IN ADELAIDE

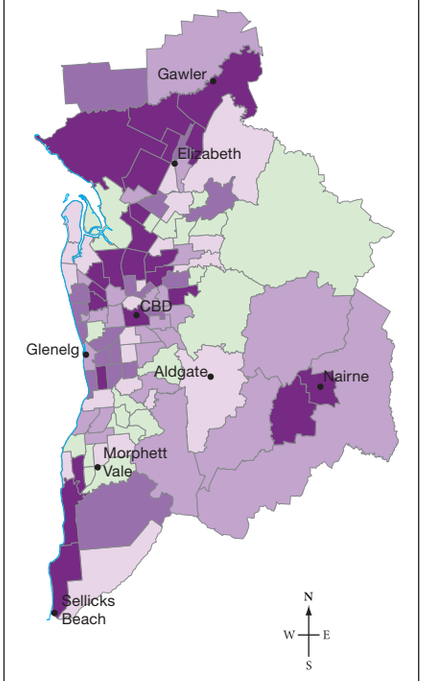


Source: MAPgraphics / ABS — Urban Centre and Locality (UCL) ASGS Edition 2011 Digital Boundaries data / OpenStreetMap (Roads)

B *Rundle Mall is Adelaide's major central shopping precinct.* ▼

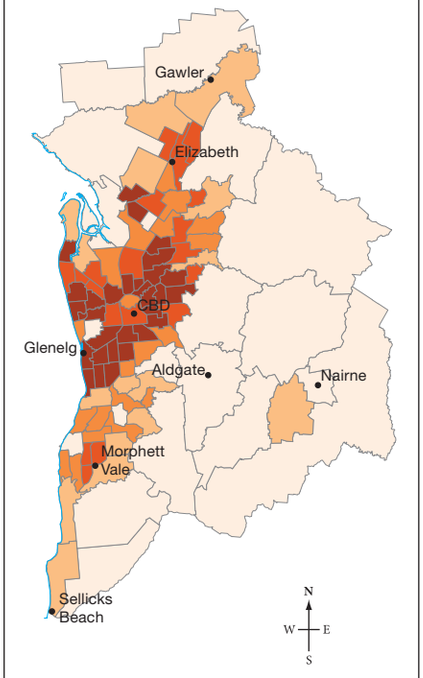


C POPULATION CHANGE



Source: Australian Bureau of Statistics

D POPULATION DENSITY



Source: Australian Bureau of Statistics

A. Adelaide's urban growth boundary is designed to protect food-producing areas and contain infrastructure building costs.

B. O-Bahn City Access route to be extended and align with priority bus lanes, increasing reliability of public transport.

C. Mount Barker emerging as an outer urban growth centre, accentuating urban sprawl.

D. The urban growth boundary will help preserve the rural environment of the Fleurieu Peninsula from suburban sprawl.

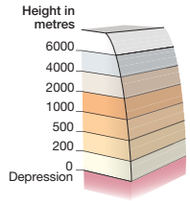
E. Port Adelaide redevelopment of historic buildings, new housing, promenades and retail precincts.

F. Airport business district development for freight, aviation support, technology and commercial services.



Key

ADELAIDE	Capital city
Gawler	Major city
Goolwa	Minor city
	National park
	Highway
	Major road
	Minor road
	Railway
	Built-up area
	Lake
	River
	Airport
Mt Gawler 543 m ▲	Mountain



Source: Geoscience Australia and Openstreetmap



Western Australia

GEOFACTS

Area: 2 529 875 sq km (Australia's largest state)

Population: 2 613 700

Population density: 1.02 people per sq km

Largest city: Perth 2 039 200 people **(C2)**

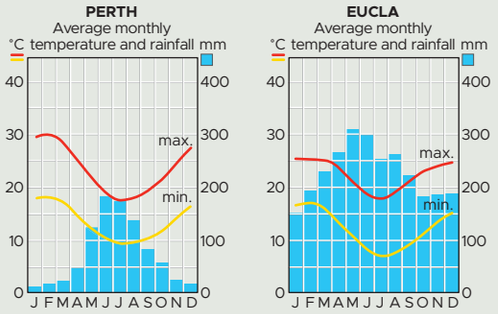
Highest mountain: Mount Meharry 1253 m **(C4)**

Largest national park: Karlamilyi 12 837.06 sq km **(D4)**

Highest temperature: Mardie 50.5°C **(C4)**

Lowest temperature: Eyre −7.2°C (2008) **(E5)**

Highest annual rainfall: Doongan 2461.8 mm **(E5)**



Nullarbor: the treeless plain

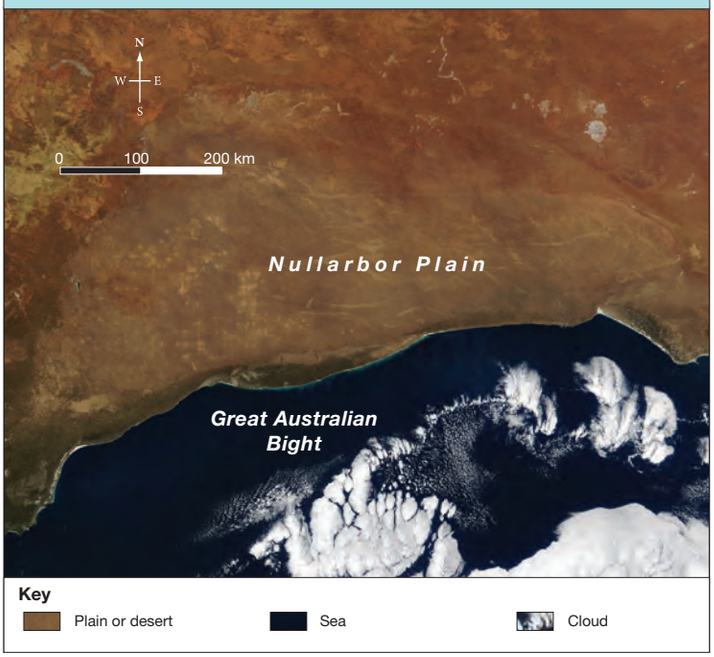
Covering 270 000 square kilometres, the almost flat Nullarbor Plain is around 65 metres above sea level. It is 2000 kilometres across **A** and extends to a dramatic cliff coast at the Great Australian Bight **C**. This is the world's largest limestone (Karst) plain, created beneath the sea from the skeletons of sea creatures. Indigenous people used rock holes (*dolines*) and many of the over 250 caves for water **D**. The Nullarbor is renowned for its meteorite deposits and the world's longest straight stretch of railway line.

A THE VAST NULLARBOR PLAIN IS CROSSED BY ROAD AND RAILWAY



Source: Geoscience Australia / Bureau of Meteorology

B RECEIVING AROUND 200 MILLIMETRES OF RAIN A YEAR, THE NULLARBOR PLAIN'S SURFACE IS COVERED IN DROUGHT-RESISTANT SCRUB



Source: Jacques Descloitres, MODIS Rapid Response Team, NASA/GSFC

C *Dramatic limestone cliffs meet the Great Australian Bight. The Eyre Highway is close to the coastline.* ▼



D *Karst caves form in limestone, a soft rock that dissolves as rainwater seeps through it.* ▼

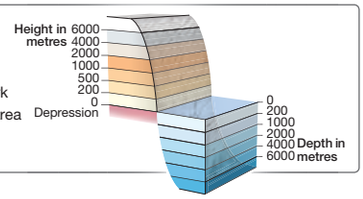




Source: Department of the Environment and Energy, Geoscience Australia © Commonwealth of Australia

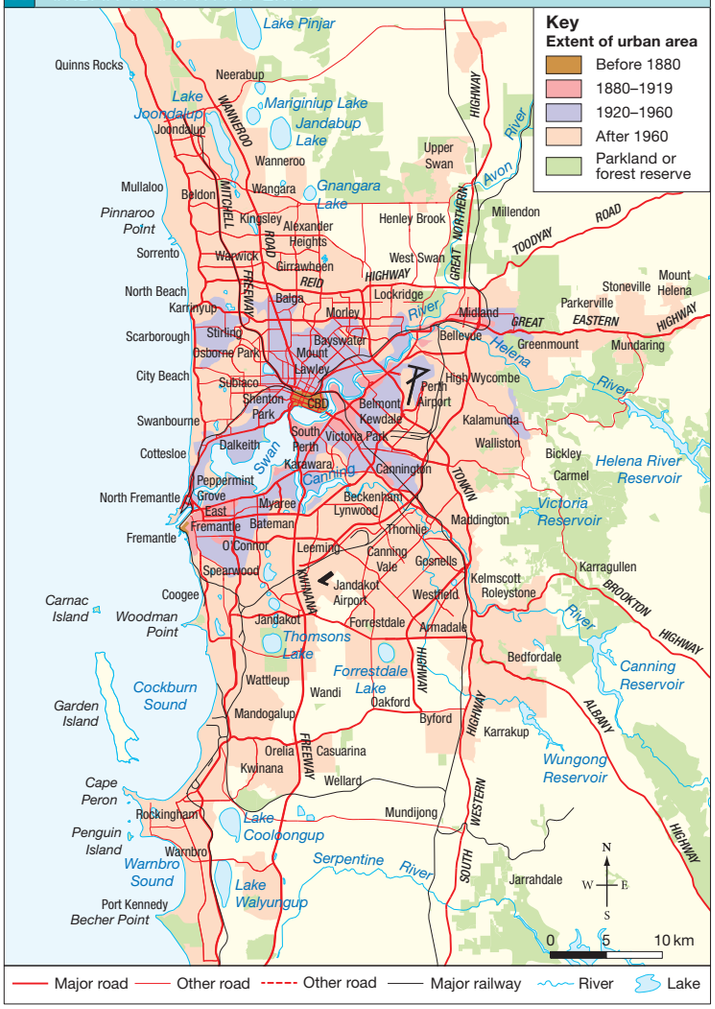
Key

- Lake; Dry lake
- River
- Wetland
- Mt Meharry 1253 m — Mountain
- Reef
- Western Australia — State/territory name
- State/territory border
- State/territory capital
- Perth — Over 1 000 000 people
- Bunbury — 50 000 to 100 000 people
- Albany — 10 000 to 50 000 people
- Collie — 5000 to 10 000 people
- Yalgoo — Under 5000 people
- Road
- Railway
- National park
- Prohibited area



Perth

A URBAN GROWTH IN PERTH



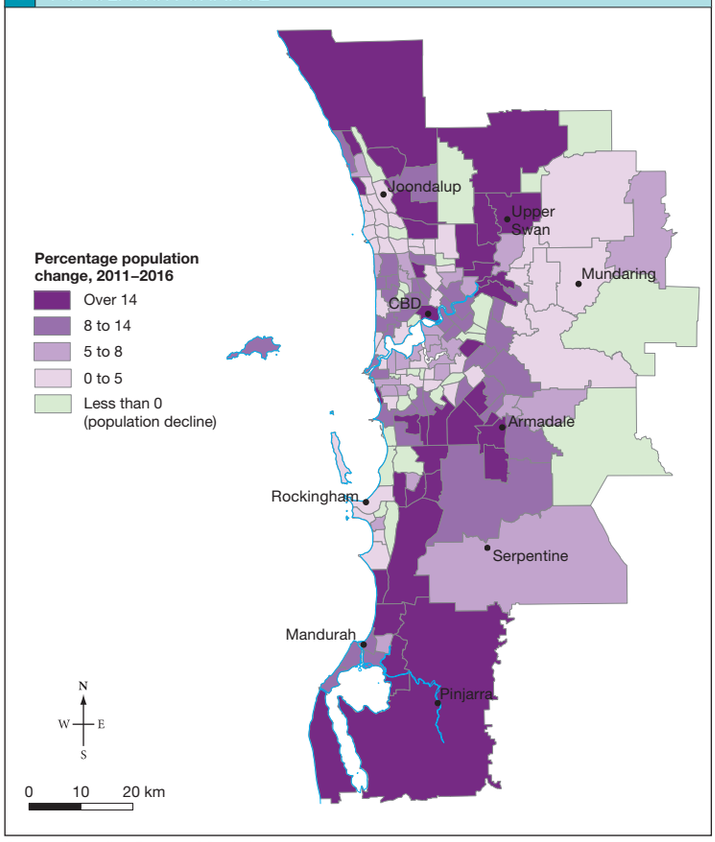
Source: MAPgraphics / ABS — Urban Centre and Locality (UCL) ASGS Edition 2011 Digital Boundaries data / OpenStreetMap (Roads)

B

London Court is an old section of central Perth and contrasts significantly with the modern business and retail sections. ▼

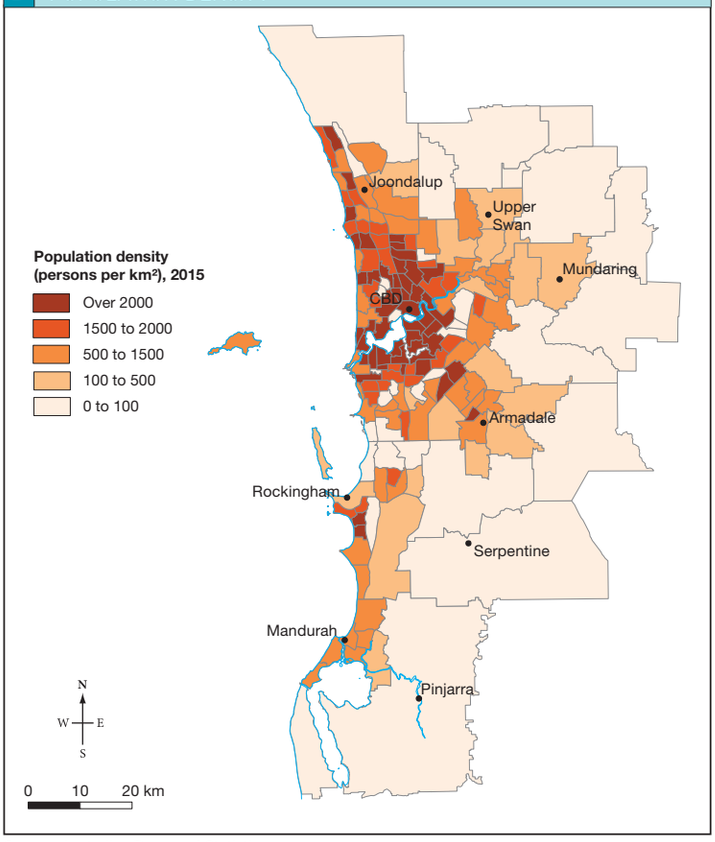


C POPULATION CHANGE



Source: Australian Bureau of Statistics

D POPULATION DENSITY



Source: Australian Bureau of Statistics

A. Rapid urban expansion northwards requiring new and expanded infrastructure and services.

B. Perth City Link between the CBD and Northbridge involves sinking the rail line and creating extensive space for housing, retail and offices.

C. Redevelopment of the Armadale region will expand residential capacity with new employment opportunities and recreation facilities.

D. Development in the Peel region will focus on a business park to include food processing together with building facilities for an expected increase in population from 130 000 to over 440 000 by 2040.

E. Elizabeth Quay: outdoor venues, promenade, office space and residential areas.

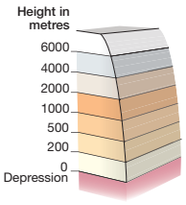
F. Yagan Square regeneration with new community activity.

E CHANGING PERTH REGION



Key

PERTH	Capital city
Mandurah	Major city
Byford	Minor city
	National park
	Highway
	Major road
	Minor road
	Railway
	Built-up area
	Lake
	River
	Airport
Mt Gunjin 398 m ▲	Mountain



Source: Geoscience Australia and Openstreetmap

Northern Territory

GEOFACTS

Area: 1 349 129 sq km

Population: 244 900 (Australia's lowest)

Population density: 0.2 people per sq km (Australia's lowest)

Largest city: Darwin 142 300 people **(C8)**

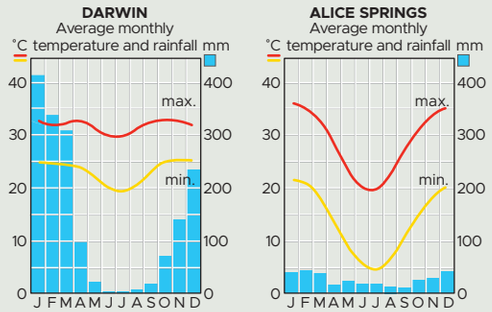
Highest mountain: Mount Zeil 1531 m **(D3)**

Largest national park: Kakadu 19 800 sq km **(D8)**

Highest temperature: Finke 48.3°C **(D2)**

Lowest temperature: Alice Springs −7.5°C **(D3)**

Highest annual rainfall: Lake Evella 3866.6 mm **(E8)**



Kakadu: a wetland environment

Kakadu National Park has extensive wetlands. During the wet season from January to March, the park is deluged with rain **A**. During the dry season from May to September, the water on the floodplain recedes, leaving billabongs **B**. Kakadu's low-lying plains and wetlands provide safe feeding and breeding grounds for millions of water birds **C**.

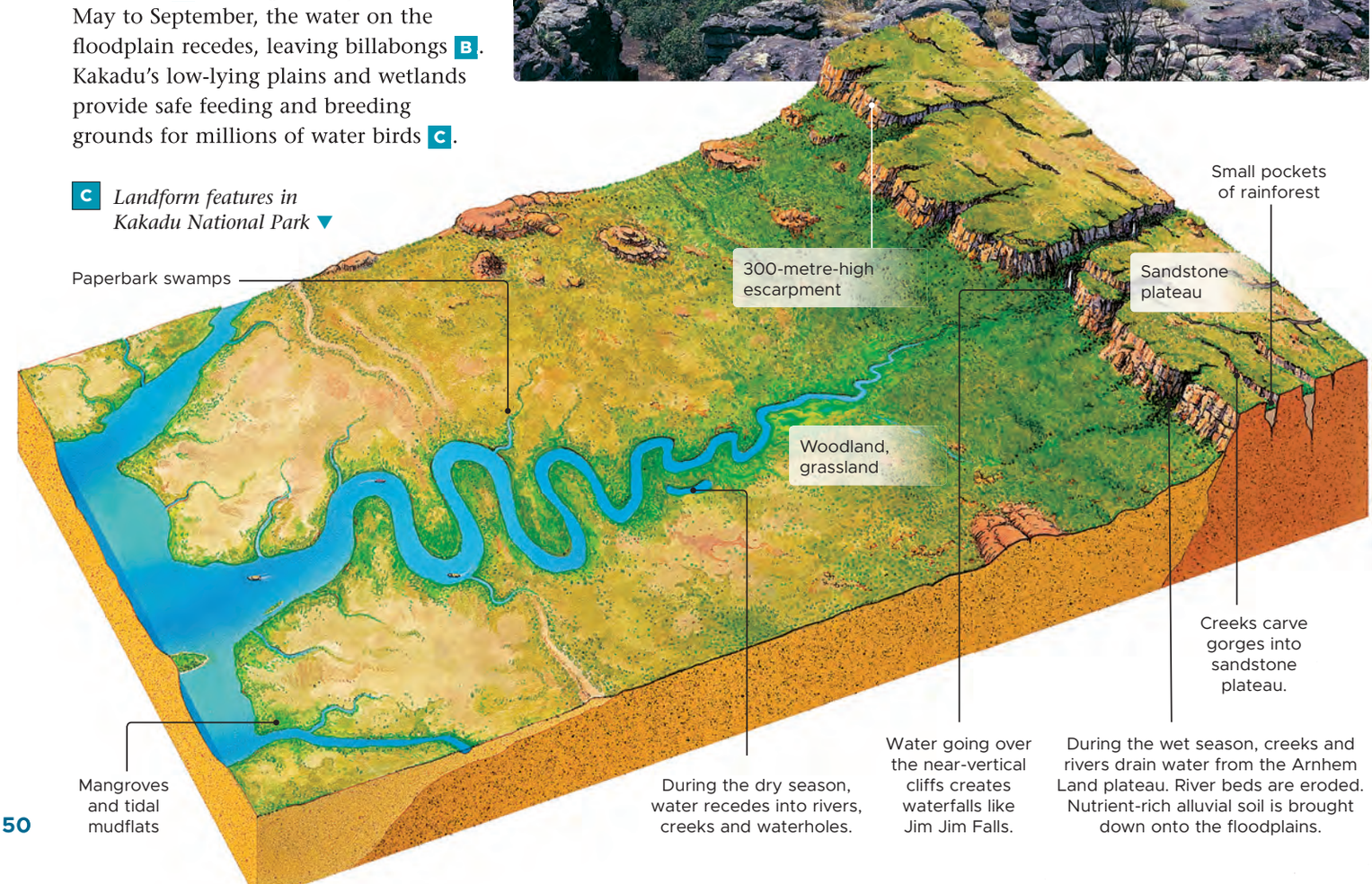
A *Kakadu during the wet season* ▼



B *Kakadu during the dry season* ▼



C *Landform features in Kakadu National Park* ▼

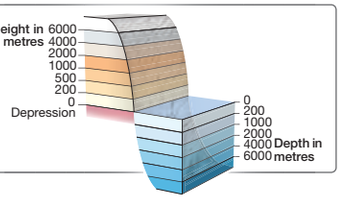




Source: Department of the Environment and Energy, Geoscience Australia © Commonwealth of Australia

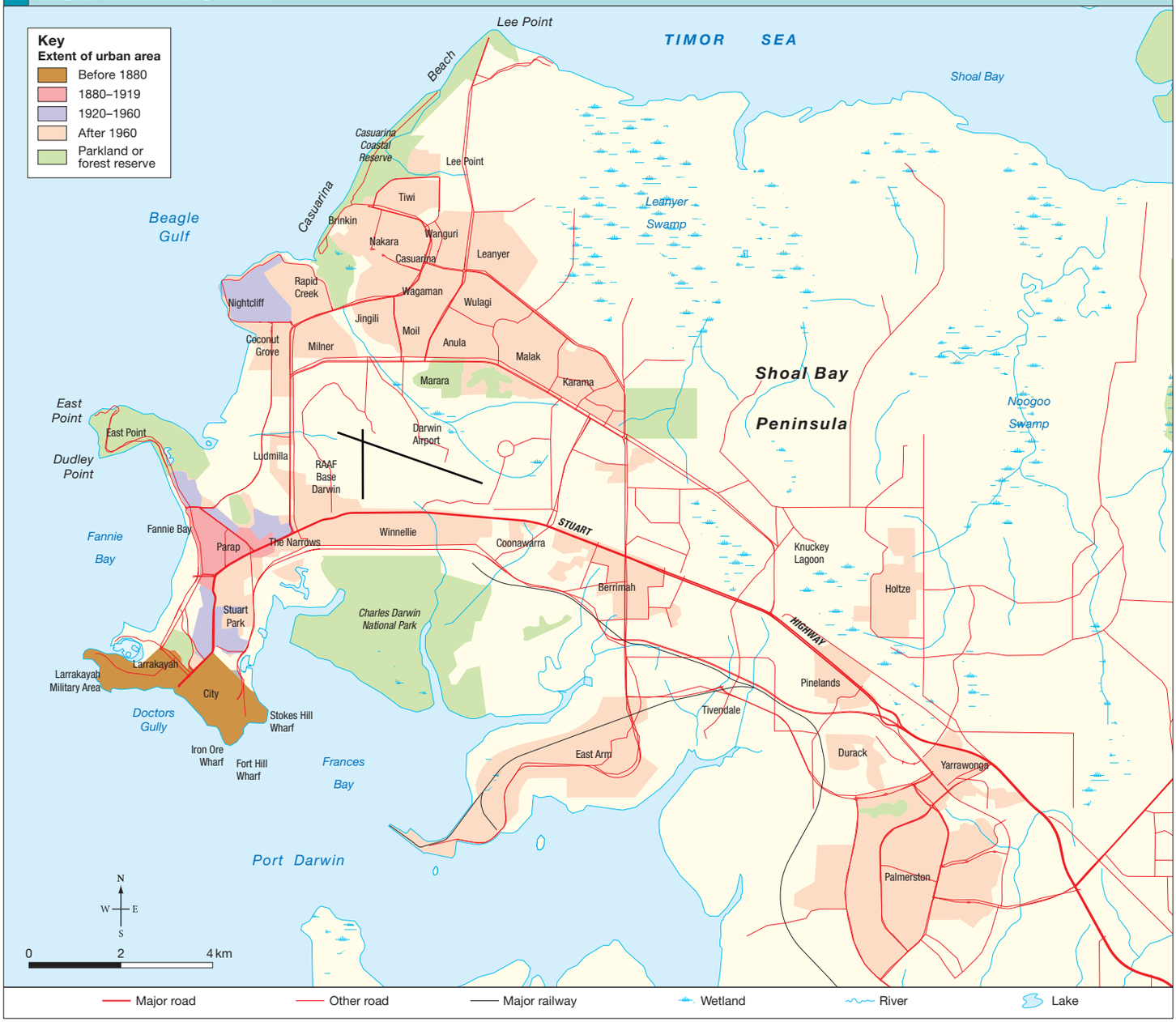
Key

- Lake; Dry lake
- River
- Wetland
- Mountain (Mt Zeil 1531 m)
- Northern Territory — State/territory name
- State/territory border
- State/territory capital
- Darwin — 50 000 to 100 000 people
- Alice Springs — 10 000 to 50 000 people
- Katherine — 5000 to 10 000 people
- Barunga — Under 5000 people
- Roper Valley — Homestead
- Road
- Railway
- National park
- Prohibited area



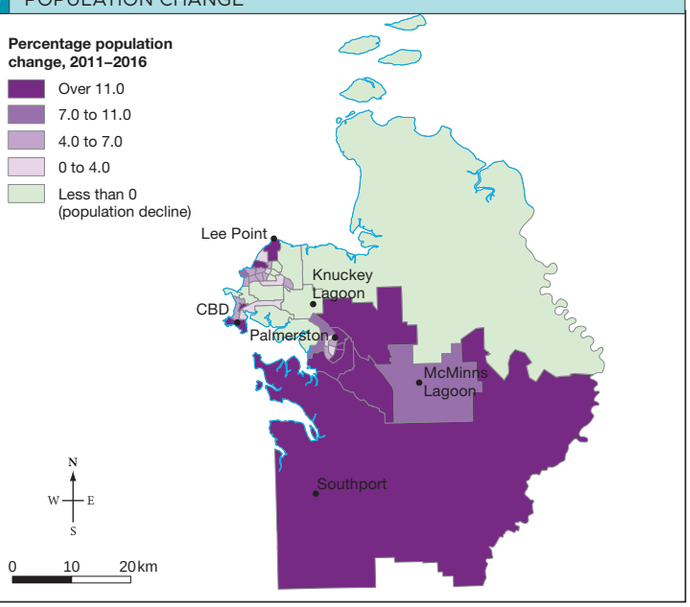
Darwin

A URBAN GROWTH IN DARWIN



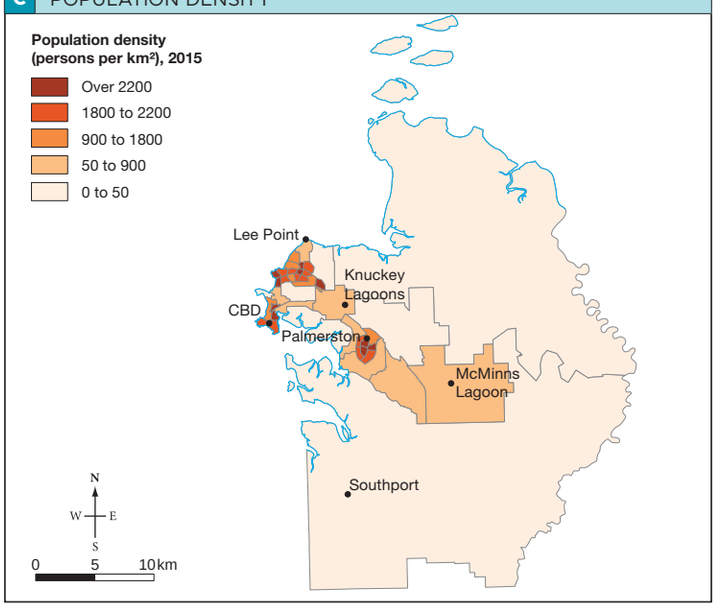
Source: MAPgraphics / ABS - Urban Centre and Locality (UCL) ASGS Edition 2011 Digital Boundaries data / OpenStreetMap (Roads)

B POPULATION CHANGE



Source: Australian Bureau of Statistics

C POPULATION DENSITY



Source: Australian Bureau of Statistics

A. Darwin Waterfront Master Plan aims to convert old industrial zones into mixed-use urban areas, including a cultural and tourism precinct.

B. Conversion of large blocks and semi-rural land to new housing in the Palmerston region, particularly around Mitchell Creek.

C. RAAF Base undergoing considerable expansion and facilities upgrade, including accommodation for service people.

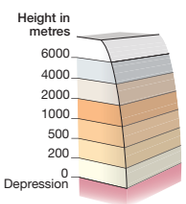
D. Northcrest to become a new community and retail centre for 7500 new residents.

D CHANGING DARWIN REGION



Key

DARWIN	Capital city
Palmerston	Major city
Nightcliff	Minor city
	National park
	Highway
	Major road
	Minor road
	Railway
	Built-up area
	Lake
	River
	Airport
Peak Hill 34 m ▲	Mountain



Source: Geoscience Australia and Openstreetmap



Antarctica: human features

Tourism in Antarctica

Antarctica is the world's largest wilderness area. Tourists come from a wide range of countries **A** but the number of tourists who visit Antarctica is relatively low. This is due to the harsh climate, large distances to travel, and the costs involved.

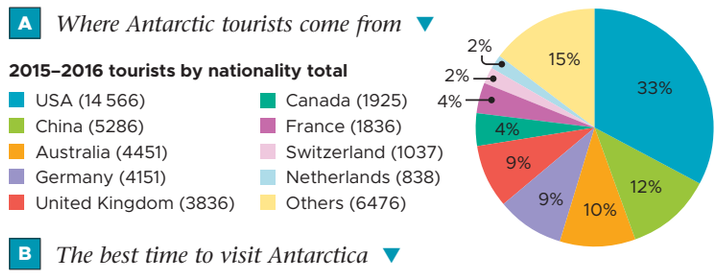
Tourism is concentrated on and around the Antarctic Peninsula **D** for a number of reasons: it is close to South American ports, it has a wide range of wildlife, it is a milder climate than inland, and there are ice-free areas. Due to freezing temperatures and sea ice, visits are restricted to the summer months (November–March), which also coincide with the breeding season for most Antarctic wildlife **B**.

The environmental risks of tourism include threats to wildlife and habitat, the introduction of pests and diseases, and the risk of a major shipping accident and oil spills. For example, 43 000 tourists and 7000 scientists who visit each year are responsible for accidentally transporting 70 000 plant seeds. One grass has already out-competed native grass on King George Island **E**.

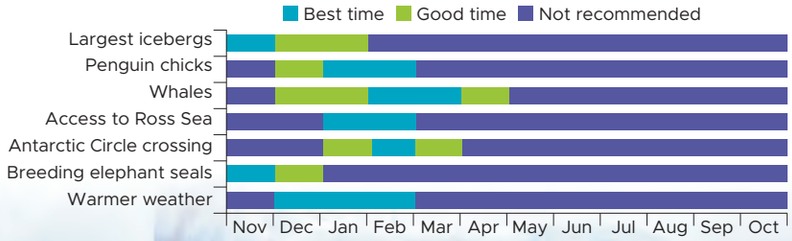
All activities in Antarctica are controlled by a set of guidelines under the Antarctic Treaty, which rules the continent. For example, ships carrying more than 500 passengers are not permitted to land while smaller ships are only allowed a maximum of 100 people ashore at any one time with one guide per 20 passengers. There are further restrictions on the protection of wildlife, historical sites and dealing with waste. All outer clothing, footwear and boats have to be specially cleaned to prevent any contamination of the pristine environment. No souvenirs, feathers or rocks are to be taken or wildlife touched.

The experience of touring Antarctica often turns visitors into ambassadors for promoting the protection of the frozen continent. This may ensure that tourism remains an environmentally sustainable activity into the future.

A *Where Antarctic tourists come from* ▼



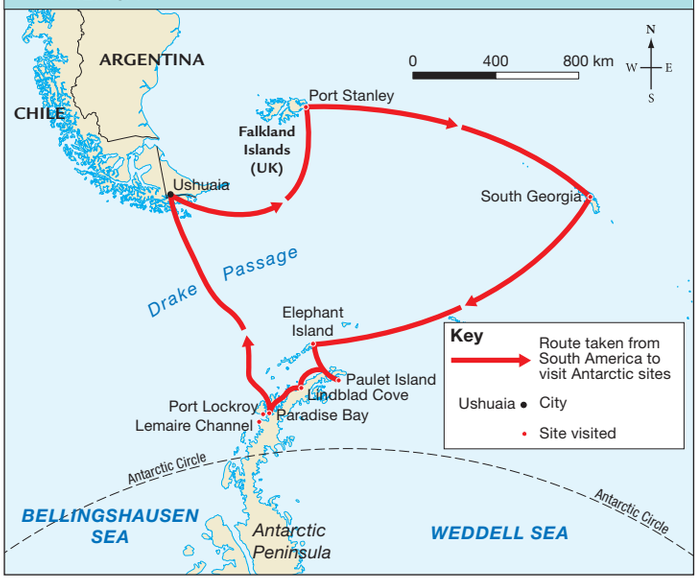
B *The best time to visit Antarctica* ▼



C *Tourists in a zodiac viewing wildlife from a distance.* ▼

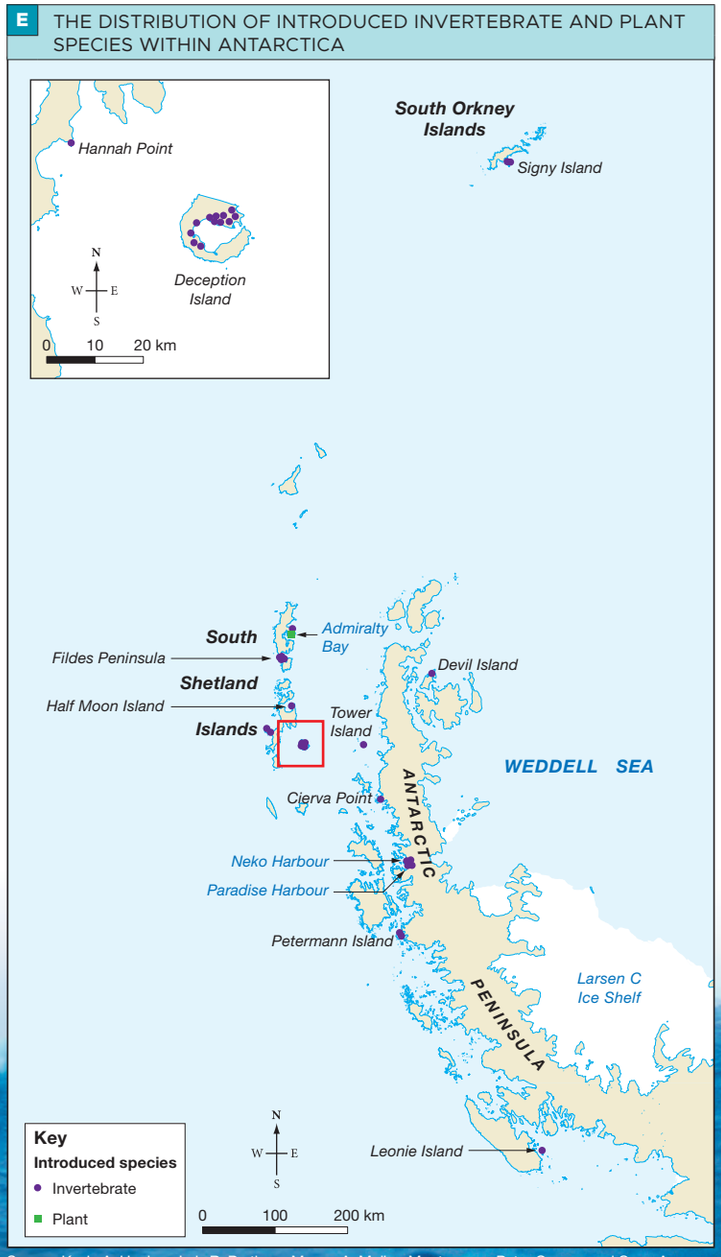


D POPULAR SITES VISITED BY TOURISTS SAILING FROM SOUTH AMERICA

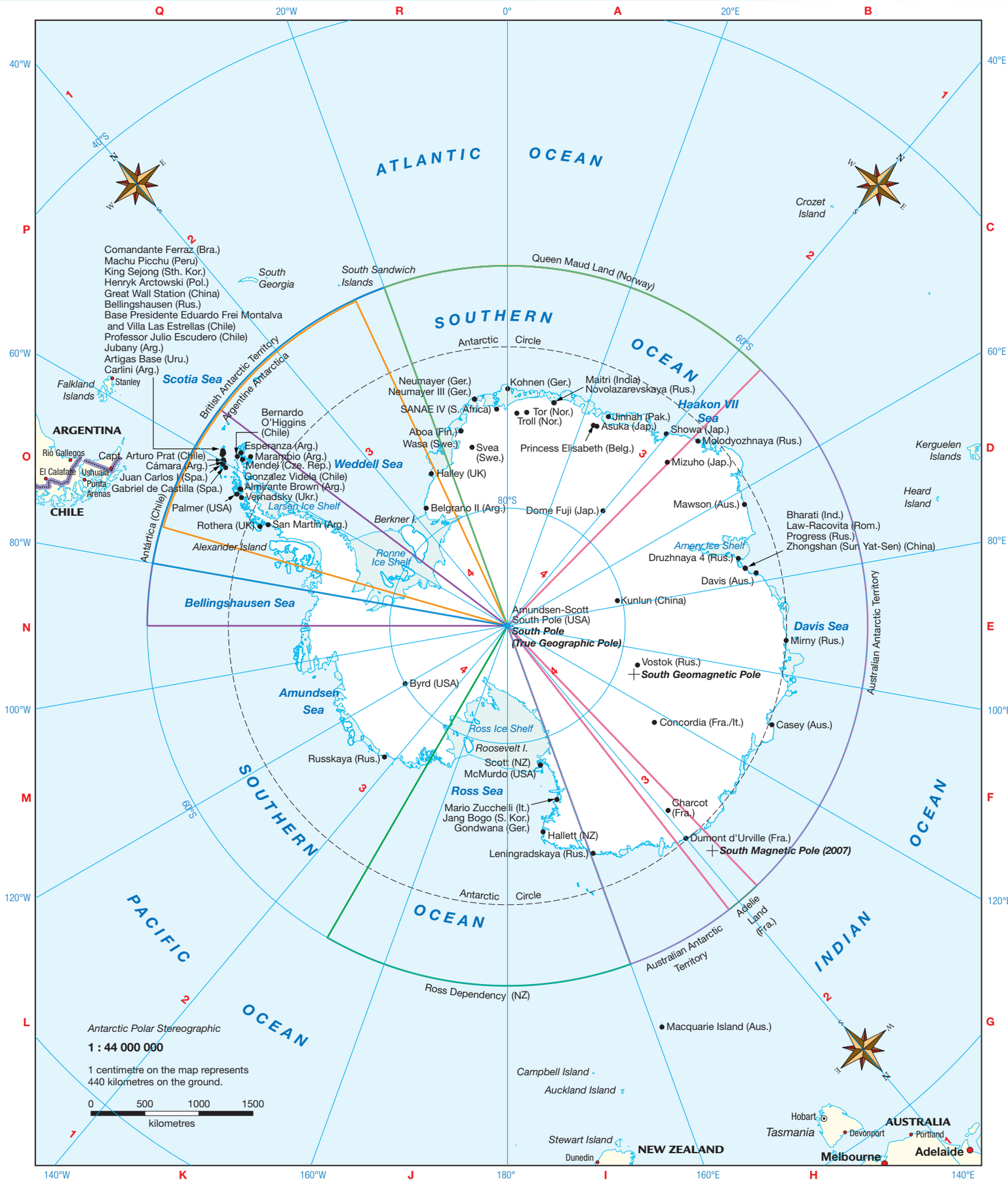


Source: Spatial Vision

E THE DISTRIBUTION OF INTRODUCED INVERTEBRATE AND PLANT SPECIES WITHIN ANTARCTICA



Source: Kevin A. Hughes, Luis R. Pertierra, Marco, A. Molina-Montenegro, Peter Convey and Open Access



Source: Natural Earth Data, www.naturalearthdata.com and © The Scientific Committee on Antarctic Research (SCAR) 2017

Key

- AUSTRALIA — Country name
- Country border
- Ice shelf
- Island

Countries with territorial claims

- Argentina
- Australia
- Chile
- France
- New Zealand
- Norway
- United Kingdom

- Melbourne — 1 000 000 to 5 000 000 people
- Devonport — Under 100 000 people
- Scientific station (operating country)



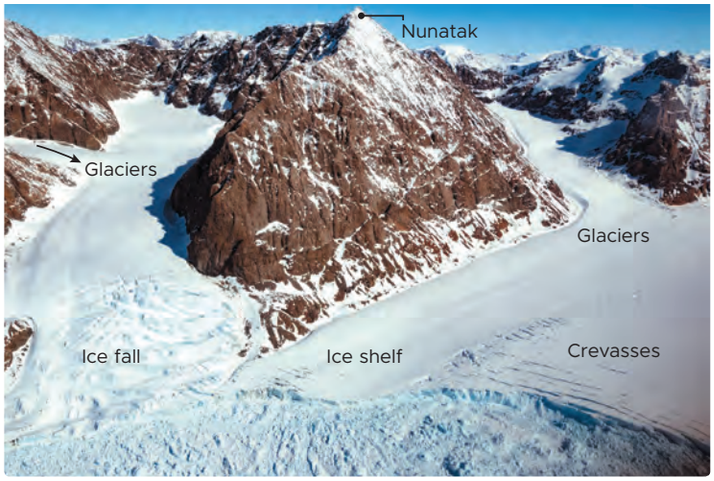
Antarctica: natural features

Landforms of Antarctica

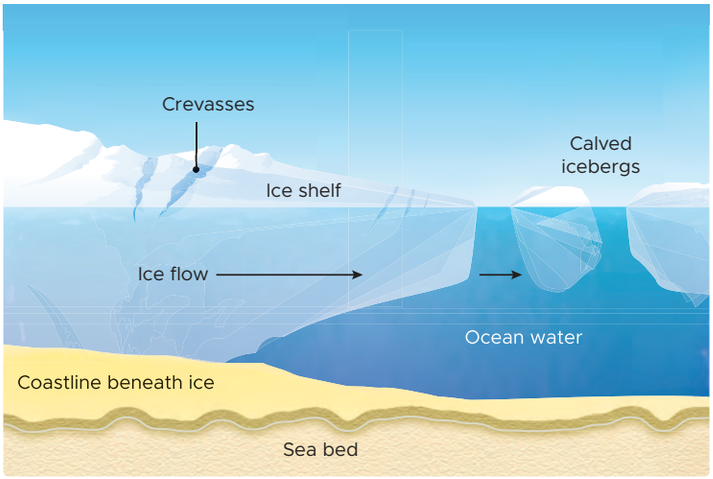
Antarctica is a landscape dominated by ice. On a continent larger than Australia, only 2 per cent of the land is ice-free (see cross-section). With the exception of a few rocky mountain peaks (nunataks) and bare dry valleys (oases), landform features are made entirely of ice.

Antarctica is a desert receiving less than 150 mm of precipitation a year, mostly falling as snow. Due to the extreme cold, the snow does not melt but gradually, over thousands of years, accumulates and becomes compressed into glacial ice. Two massive glacial ice sheets, up to 4000 metres thick, cover the land (see cross-section). Ice moves under gravity and glaciers form as the ice follows the shape of the land beneath and moves down the valleys **A**. As ice is a solid substance, the movement of a glacier is similar to a bulldozer scraping away at the Earth's surface, excavating and pushing rock and debris ahead. The ice can fracture and crack, creating crevasses as it grinds over uneven ground **A** **B**. A glacier reaching the coastline can flow out over the water surface, creating extensive ice shelves **B** **D**. Large sections of ice shelves can break away, forming icebergs **B** **C**.

A *Landform features of Antarctica* ▼



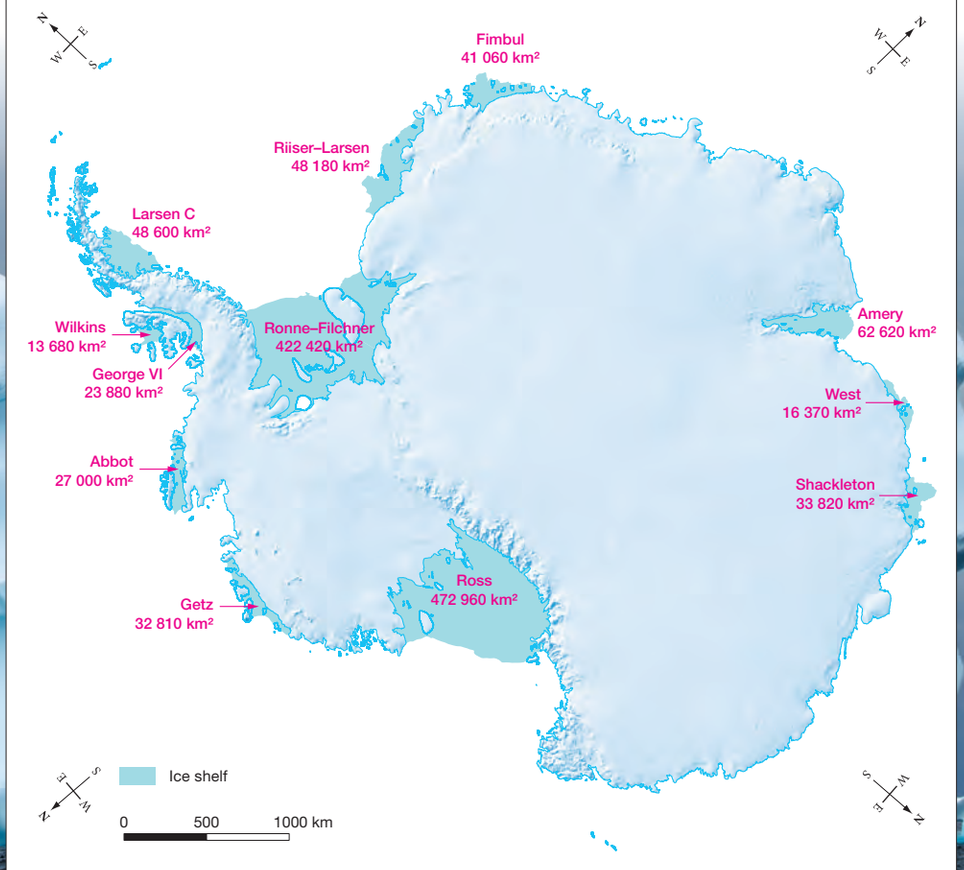
B *The formation of ice shelves and icebergs* ▼



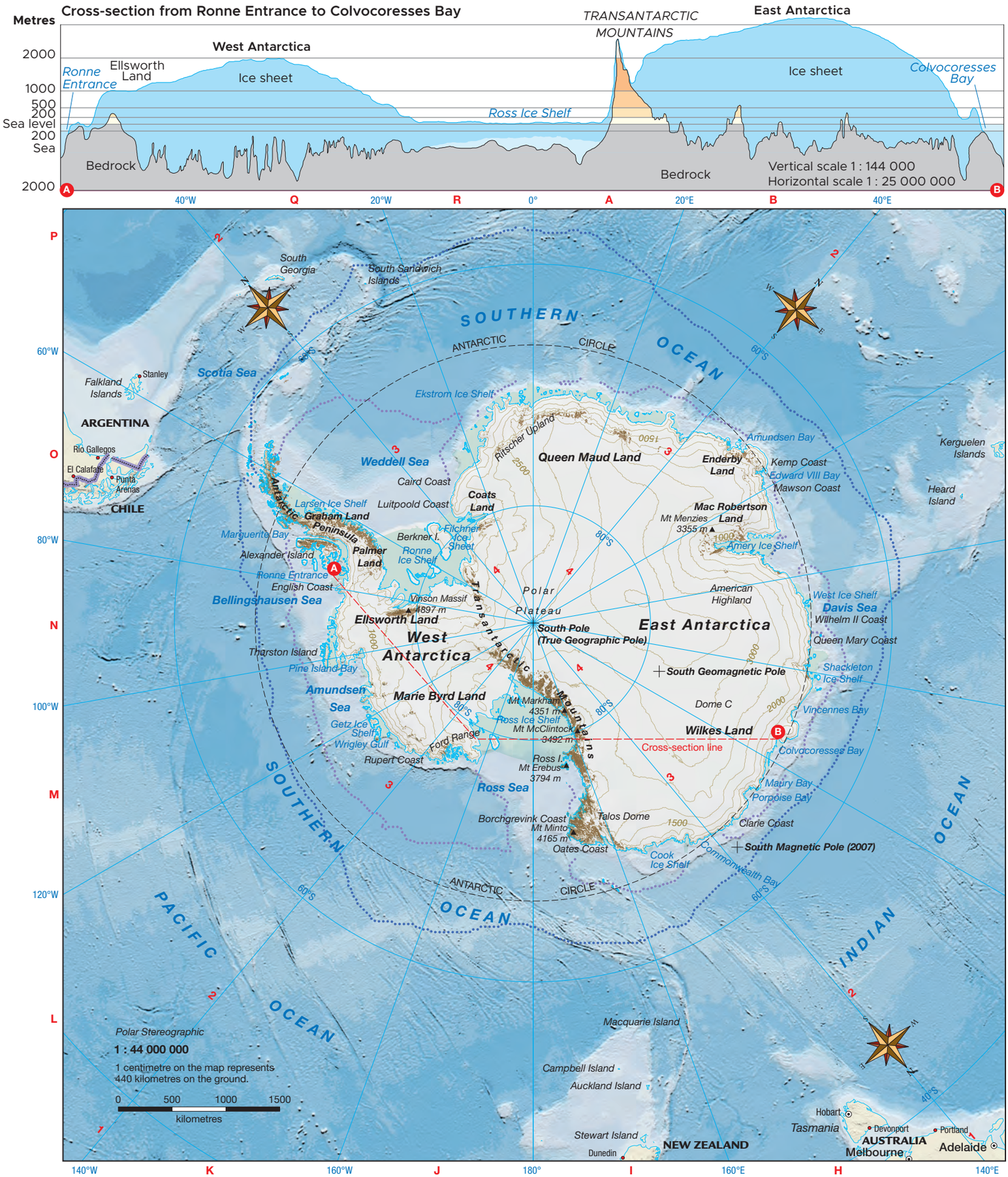
C *Icebergs can be shaped by the action of wind and waves.* ▼



D ICE SHELVES MAKE UP 11 PER CENT OF THE TOTAL AREA OF ANTARCTICA.



Source: NASA/USGS — Landsat Image Mosaic of Antarctica LIMA



Source: Natural Earth Data www.naturalearthdata.com / U.S. Department of the Interior / U.S. Geological Survey

Key

Mt Minto 4165 m ▲ Mountain	Ice shelf	Ice-free rock	Country border	Minimum extent of sea ice
South Georgia Island	Ice sheet	1500 Contour (500 m interval)	CHILE Country name	Maximum extent of sea ice

Food security

Fishing is a major contributor to food security in Pacific Island Countries and Territories (PICT), through subsistence production and income generation. The fishing industry helps provide protein in the diets of the PICT people. Climate change represents a serious risk to food security in the PICTs. Despite traditional coastal fisheries **A** producing 150 000 metric tonnes of fish per year, by 2030 only six of the 22 PICTs **B** will be able to meet fish consumption demand.

Tuna fishing is a major economic industry for the PICTs. The inability of traditional fishing methods to access tuna, due to their distance from the coastline, means that tuna has become highly valuable to foreign fleets on the global market. With 60 per cent of tuna from the western and central Pacific Ocean caught in the Exclusive Economic Zones (EEZ) of the Parties to the Nauru Agreement **C** it provides an important source of foreign exchange through fishing, transhipment and access fees for foreign fishing fleets in the area.

To maintain the economic importance of the tuna industry to the PICTs while also working to achieve food security, two main steps have been taken.

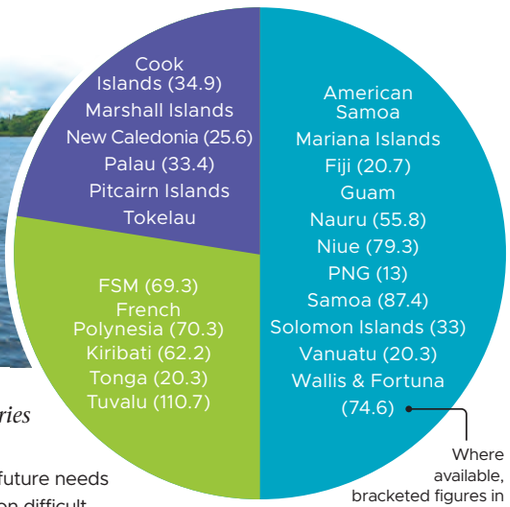
Firstly, fish-attracting devices (FADs) have been set up around the Exclusive Economic Zones of the PICTs **D**. The FADs work by attracting larger fish to take shelter under the structure, bringing fish that are typically further out to sea closer to shore.

Secondly, foreign fishing fleets are encouraged to bring their bycatch into the harbours to help feed the local population. For every 10 kilograms of tuna caught, 1 kilogram of bycatch is often thrown back into the sea. By taking this into the local harbour the people of the PICTs can increase their access to fish and improve their food security.

A *Traditional fishing methods* ▼



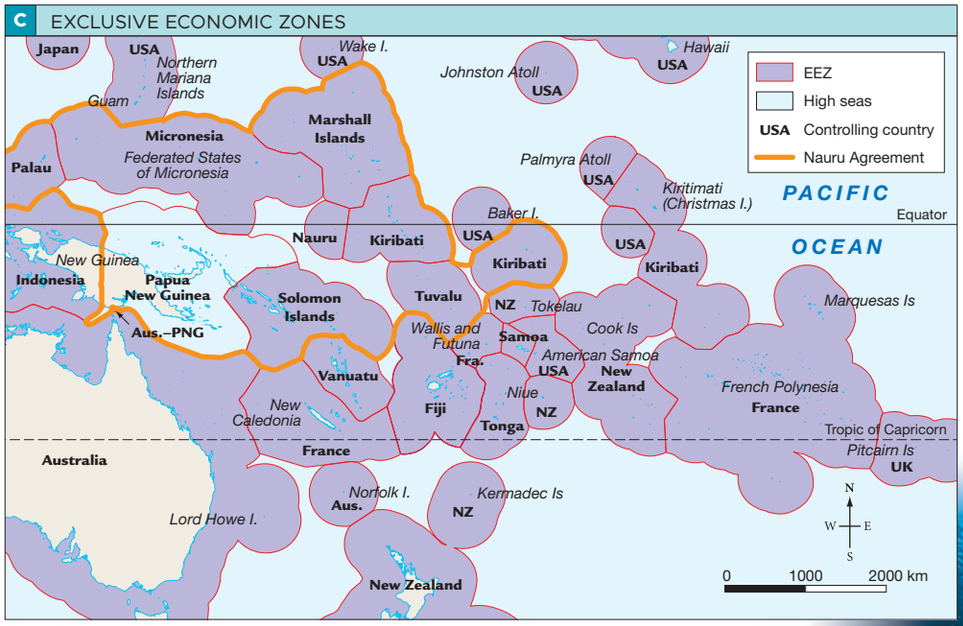
B *PICTs projected capacity of coastal fisheries to meet fish demand in 2030* ▶



Sustainable production not expected to meet future needs
Sustainable production adequate but distribution difficult
Sustainable production expected to meet future needs

Where available, bracketed figures in graph show current estimated per capita fish consumption in kg/year

C EXCLUSIVE ECONOMIC ZONES



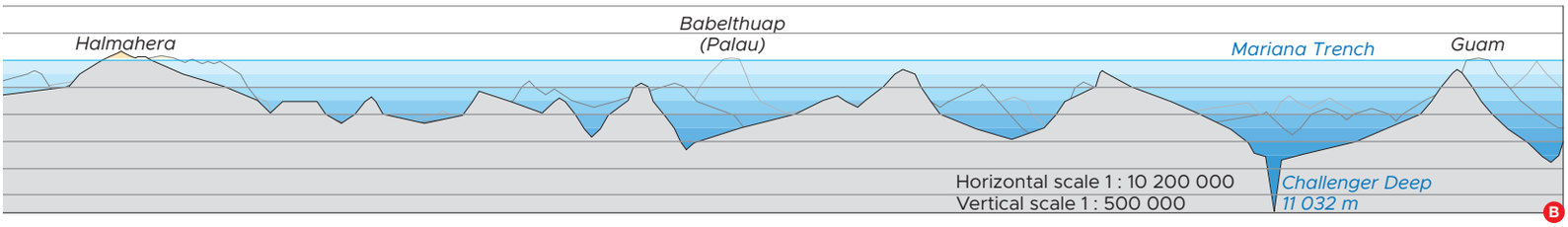
Source: Redrawn by Spatial Vision based on information from Flanders Marine Institute



D *Fish-attracting device* ▼



Cross-section from Sulawesi to Guam



Source: Natural Earth Data, www.naturalearthdata.com

Key

Lake; Dry lake
Reef
FIJI Country name
Country border
Country capital
Cook Islands (NZ) Dependency
Sydney 1 000 000 to 5 000 000 people
Honolulu 500 000 to 1 000 000 people
Townsville 100 000 to 500 000 people
Rabaul Under 100 000 people
Major road
Major railway



Fiji

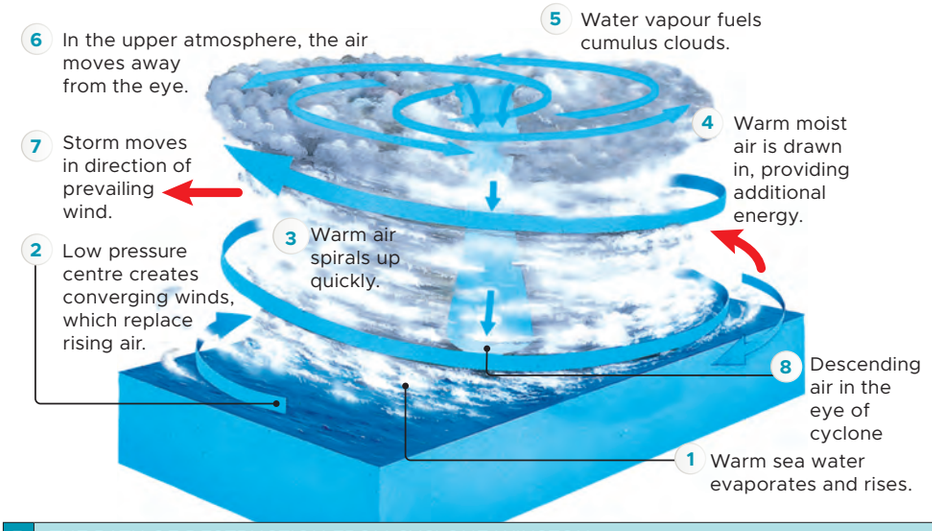
Tropical cyclone hazards

Tropical cyclones are the most widespread natural disaster in the Pacific Ocean. Known as hurricanes in the USA and typhoons in Asia, tropical cyclones form over oceans where water temperature is around 26°C **A**. In recent years Fiji has been hit by a number of severe cyclones, the most destructive being Cyclone Winston. The storm struck on 20 February 2016 with torrential rain, wind gusts up to 325 kilometres per hour and waves up to 12 metres high **B**.

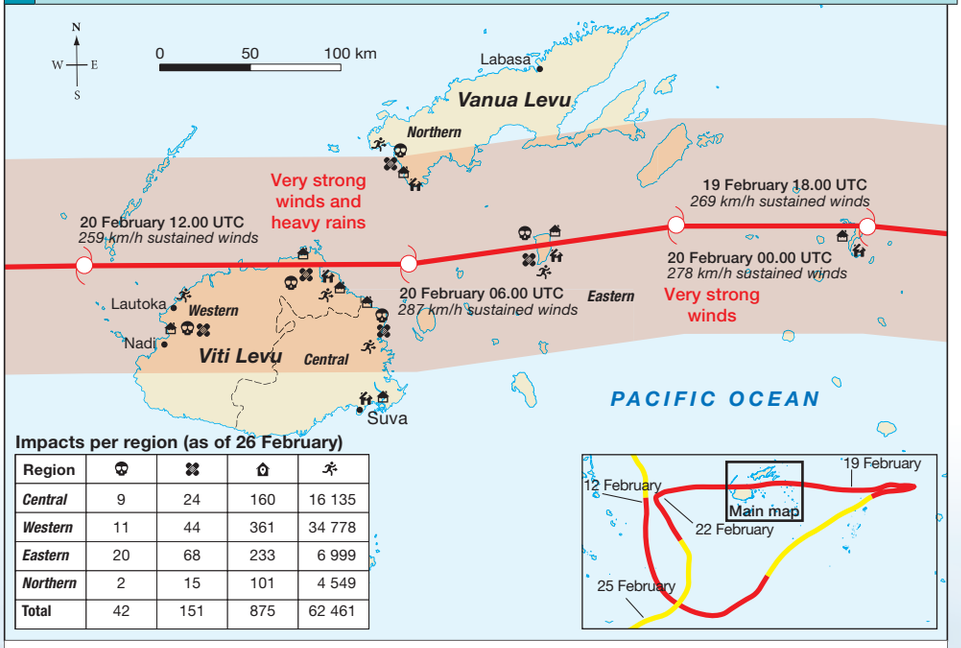
Cyclone Winston impacted 350 000 people and was responsible for 43 deaths. At least 3360 homes were destroyed and 5846 damaged. Water supplies, roads, power and communication lines, schools and farmland were also affected **C**. More than half of the sugar crop on the main island of Viti Levu was destroyed, affecting the 200 000 people who work in the sugar industry.

It has been estimated that the cost of the damages from the cyclone was more than $1.4 billion Fijian, the equivalent of 31 per cent of the country's Gross Domestic Product. The storm came only four years after Cyclone Evan, which caused damages of over US$100 million. Economic and social hardship and damage to agricultural productivity can persist for many years after a disaster and have long-term consequences for a small country with a struggling economy, where 30 per cent of the population live in poverty. Australia, among other countries, donated $35 million in humanitarian assistance.

A *How a cyclone forms* ▼



B THE PATH OF DESTRUCTION FROM CYCLONE WINSTON



Impacts per region (as of 26 February)

Region	Dead	Injured	Evacuation centre	Evacuees
Central	9	24	160	16 135
Western	11	44	361	34 778
Eastern	20	68	233	6 999
Northern	2	15	101	4 549
Total	42	151	875	62 461

Key

Tropical cyclone sustained wind
- >118 km/h
- 63–118 km/h

Wind buffer
- >118 km/h
- Eye of Cyclone

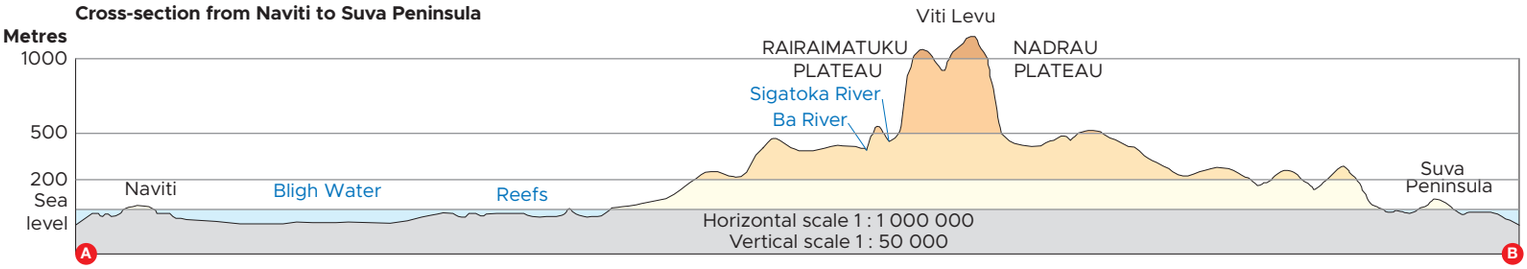
Dead
Injured
Evacuees
Evacuation centre
Floods
Damaged houses

Source: Australian Severe Weather

C *Damages from Cyclone Winston* ▼



Cross-section from Naviti to Suva Peninsula



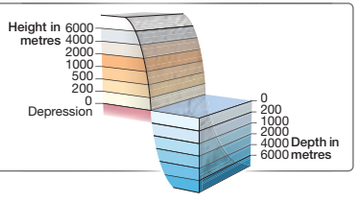
D FIJI



Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Key

- River
- Tikituru 936 m ▲ Mountain
- Reef
- FIJI Country name
- Country capital
- Suva • 100 000 to 500 000 people
- Nadi • Under 100 000 people
- Major road
- Major railway



The Kokoda Trail



The 96-kilometre trail that crosses the Owen Stanley Range was the location of the 1942 battle where Australian military held back Japanese forces attempting to take the airfield at Port Moresby. From Owers Corner, the trail rises to 2190 metres **B** and this steep and challenging terrain can only be crossed by foot. The climate is very hot and humid. Rainfall and mud abound bringing about the physical dangers of exhaustion and an increase in the likelihood of infection.

Even so, the trail has taken on iconic status in Australia, with trekker numbers increasing from 76 in 2001 to around 3000 in 2015. The combination of physical challenge and historical curiosity has led to the trail's popularity. Many groups contribute to improving the wellbeing of the local Koiari people and to their environment. This includes helping with educational facilities, track maintenance, communications infrastructure, health equipment and encouraging biodiversity investigations that employ local people. Trekkers also create commercial opportunities for the Koiari people to supply guest houses and to be guides **A**.

A *The dangers of the trail bring to mind the efforts of those who fought in World War II.* ▼

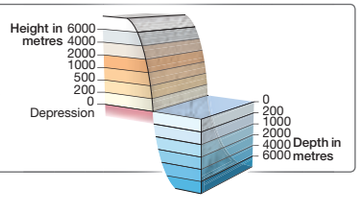




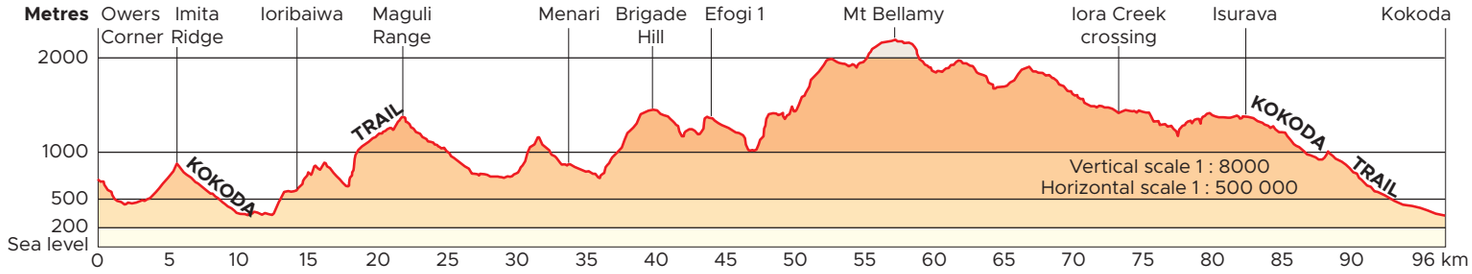
Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Key

- Lake
- River
- Wetland
- Mt Victoria 4035 m — Mountain
- Reef
- TIMOR-LESTE — Country name
- Country border
- Country capital
- Ambon — 100 000 to 500 000 people
- Kimbe — Under 100 000 people
- Major road
- Major railway
- World Heritage Area



B KOKODA TRAIL CROSS-SECTION — OWERS CORNER TO KOKODA (F2)



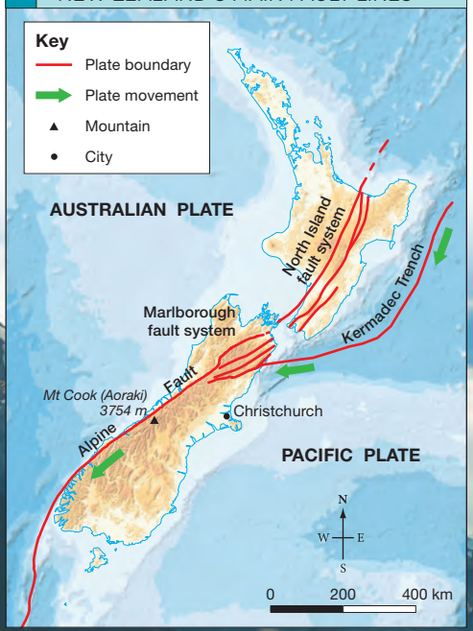
New Zealand

Changing landforms

The main islands of New Zealand sit astride the boundaries of the Australian Plate and the Pacific Plate **A**. The movement of these plates produces volcanic and earthquake activity in the North Island as the Pacific Plate tries to dive under the Australian Plate. The plate movement in the south is along fault lines including the major Alpine Fault **A**. In this region the Pacific Plate is riding over the Australian Plate producing major earthquakes **E**, and some of the world's most spectacular mountain scenery. Here the land is being uplifted and folded into the Southern Alps by around 10 to 20 millimetres a year. Mountain peaks such as Mount Cook **D** are often in excess of 3000 metres above sea level.

Erosion by rainwater and glacial ice **B** largely counters the growth in height of the Southern Alps. The upper levels of the Alps continue to support permanent snow and ice. The region's glaciers are remnants of the last ice age when much of the South Island was covered by thick ice.

A NEW ZEALAND'S MAIN FAULT LINES

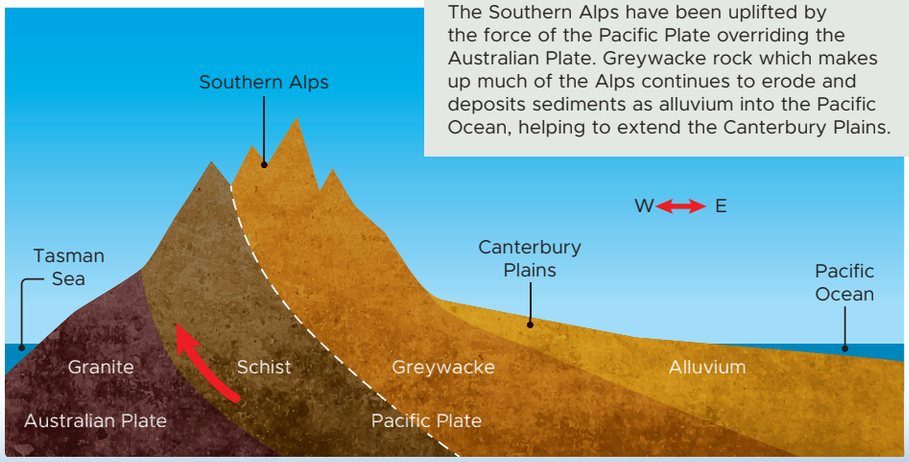


Source: Redrawn by Spatial Vision based on the data from Mike Norton

B *The Franz Josef Glacier emerges from the Southern Alps towards the west coast* ▼



C *Formation of the Southern Alps* ▼



The Southern Alps have been uplifted by the force of the Pacific Plate overriding the Australian Plate. Greywacke rock which makes up much of the Alps continues to erode and deposits sediments as alluvium into the Pacific Ocean, helping to extend the Canterbury Plains.

D *Mount Cook/Aoraki and the Hooker Valley* ▼

E *Part of the destruction resulting from the 2011 Christchurch earthquake* ▼

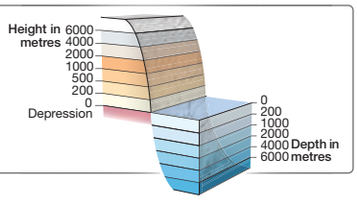




Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Key

- Lake
- River
- Wetland
- Mt Cook 3754 m ▲ Mountain
- NEW ZEALAND — Country name
- ⊛ Country capital
- Auckland ● 500 000 to 1 000 000 people
- Christchurch ● 100 000 to 500 000 people
- Gore ● Under 100 000 people
- Major road
- Major railway
- World Heritage Area



Asia: human features

GEOFACTS

Largest country:
China 9 596 960 sq km
(H4)

Smallest country:
Maldives 300 sq km
(F2)

Largest population:
China 1 382 323 332
(H4)

Smallest population:
Maldives 369 942
(F2)

Highest population density:
Singapore 7487.52 people per sq km
(H2)

Lowest population density:
Mongolia 1.89 people per sq km
(H4)

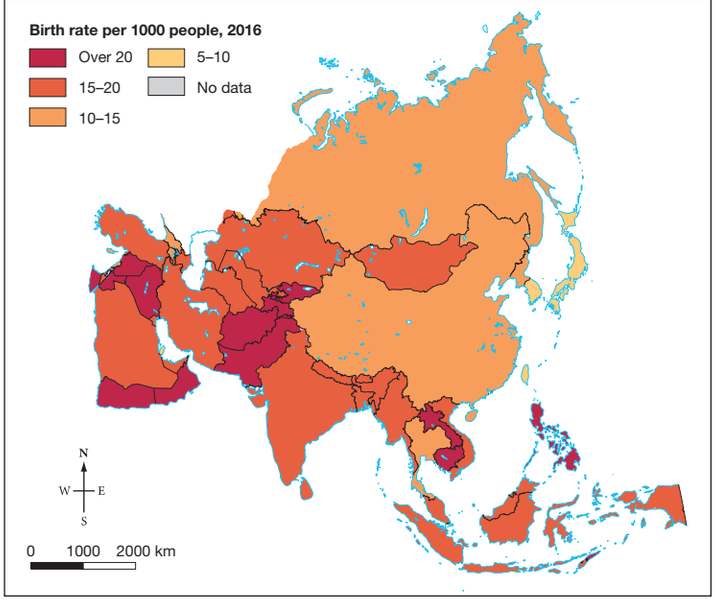
Richest country (GDP per capita):
Qatar US$129 700
(E3)

Poorest country (GDP per capita):
North Korea US$800
(I4)

Nomadic Tsaatan of northern Mongolia

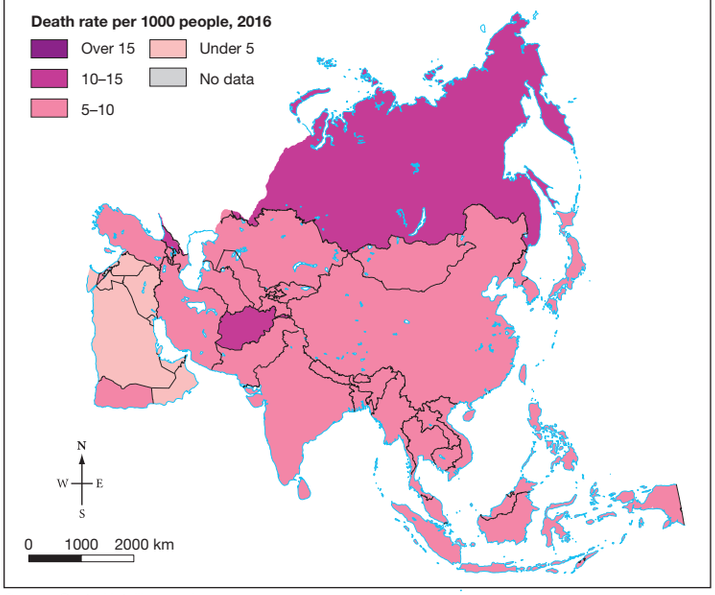


A BIRTH RATES



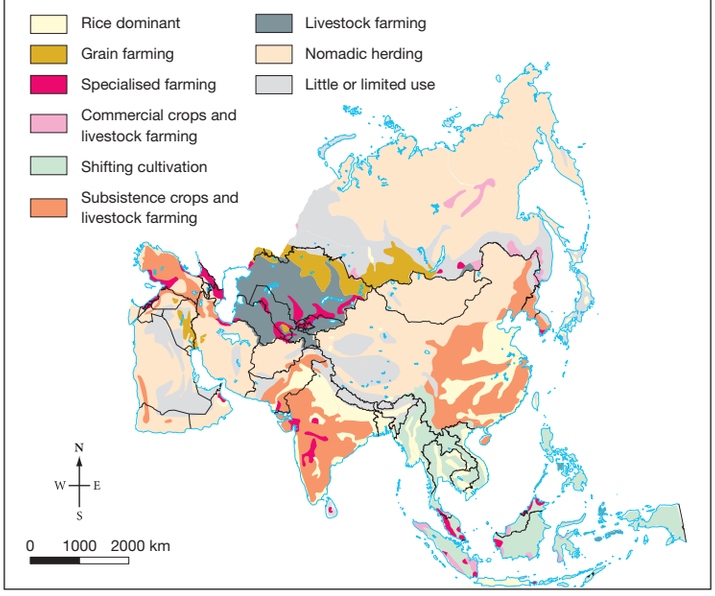
Source: Central Intelligence Agency

B DEATH RATES



Source: Central Intelligence Agency

C AGRICULTURE



Source: MAPgraphics





Source: Natural Earth Data, www.naturalearthdata.com

Key

- Lake
- Reef
- IRAQ — Country name
- ..... — Country border
- ⊛ — Country capital
- Guam (USA) — Dependency
- Hong Kong — Over 5 000 000 people
- Mandalay — 1 000 000 to 5 000 000 people
- Cebu — 500 000 to 1 000 000 people
- Jayapura — 100 000 to 500 000 people
- Major road
- Major railway

Asia: natural features

GEOFACTS

Highest point:
Mount Everest (Nepal/China) 8848 m
(G3)

Lowest point:
Dead Sea (Israel/Jordan) –430 m
(E3)

Longest river:
Yangtze River (China) 6380 km
(H4)

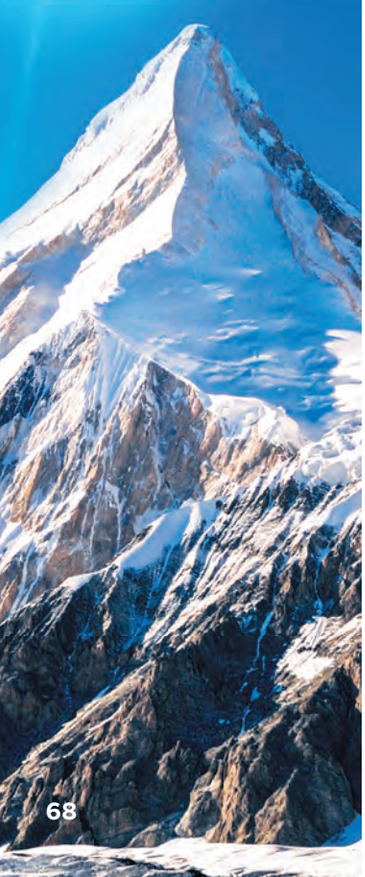
Highest temperature:
Tirat Tsvi (Israel) 54°C
(D4)

Lowest temperature:
Verkhoyansk (Russia) –68°C
(I5)

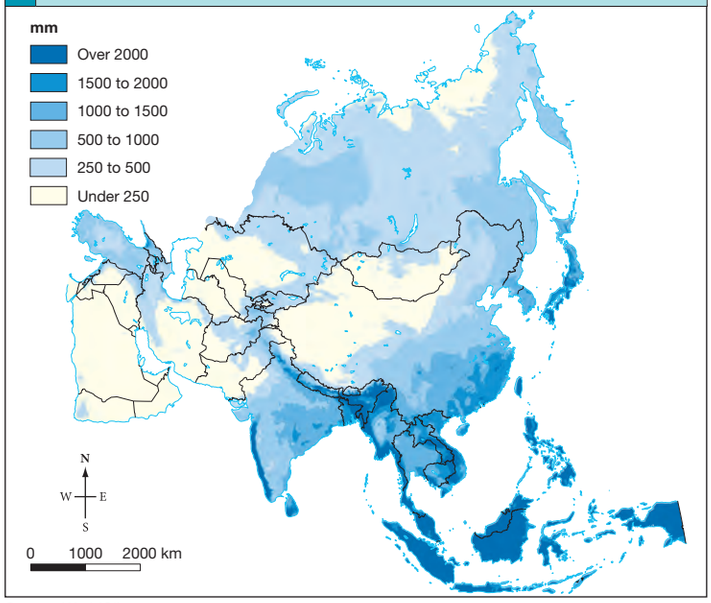
Highest annual rainfall:
Mawsynram (India) 11 873 mm
(G3)

Lowest annual rainfall:
Aden (Yemen) 46 mm
(E3)

Mount Everest, the world's highest mountain 27°59'N 86°56'E
(G3)

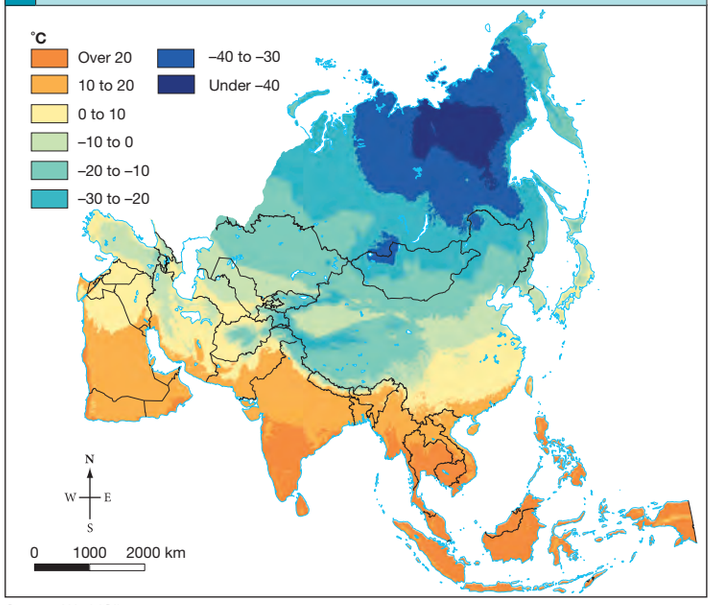


A ANNUAL RAINFALL



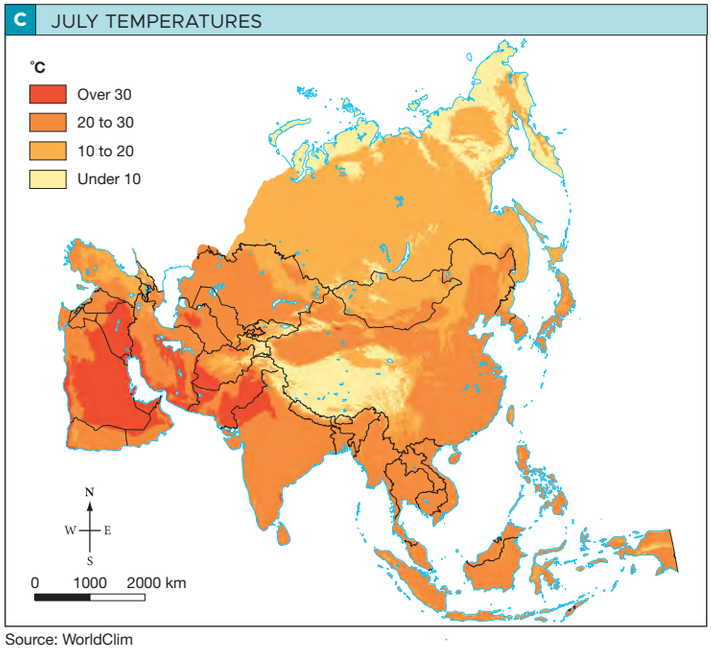
Source: WorldClim

B JANUARY TEMPERATURES



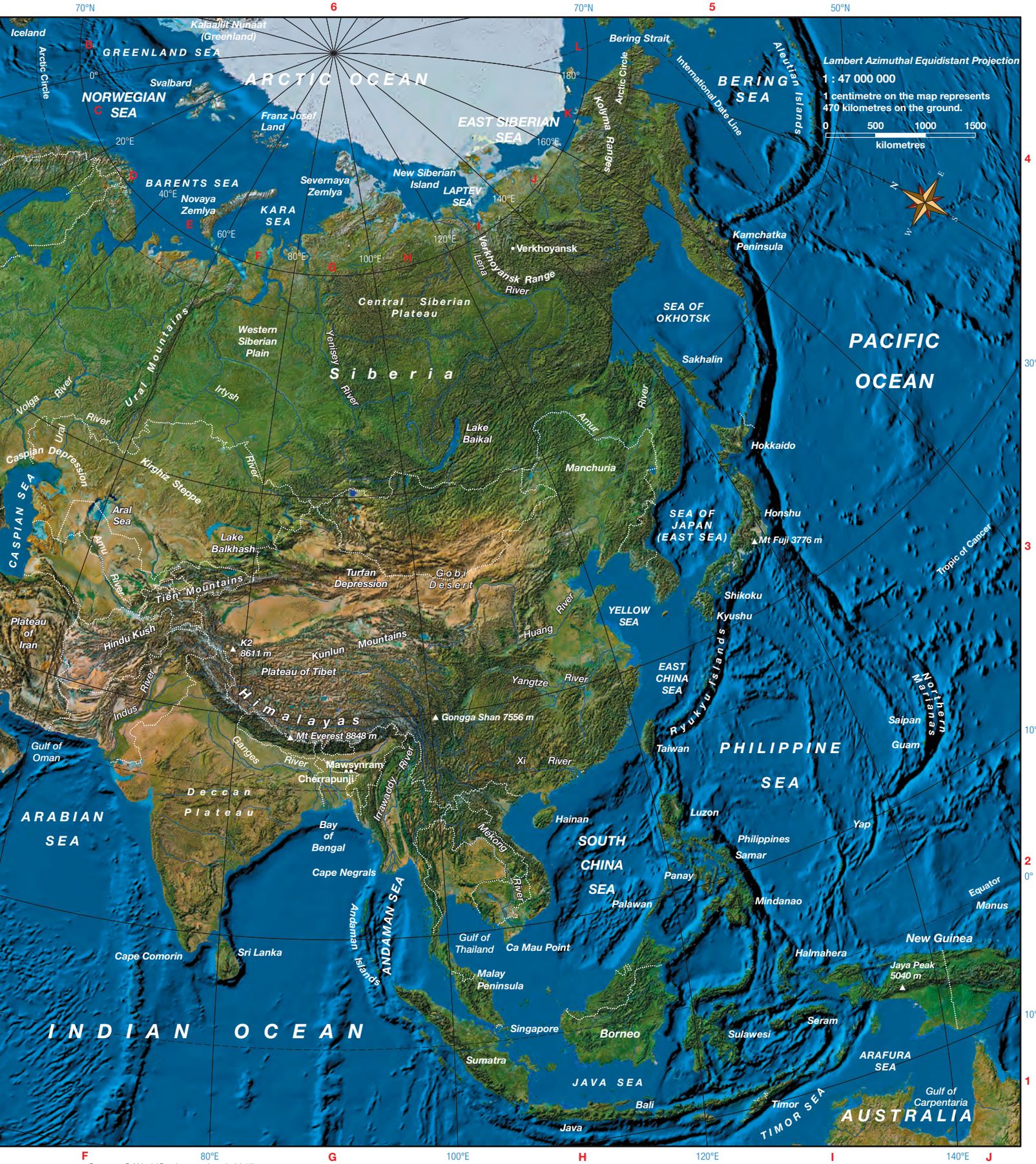
Source: WorldClim

C JULY TEMPERATURES



Source: WorldClim





Source: © WorldSat International, 2017

Key

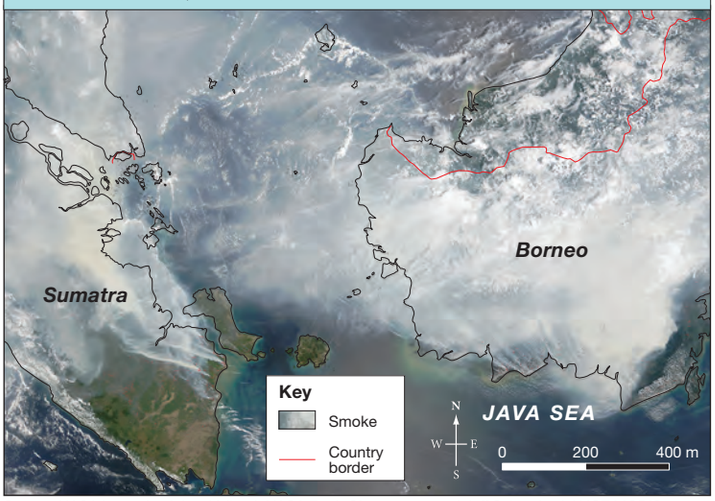
- Delta and river
- Desert
- Forest
- Lake
- Mountains
- Islands
- Seamounts
- Country borders

Smoke hazards

Large-scale clearing of native vegetation in Indonesia creates land for farming, palm oil and tree plantations for pulp and paper production. The easiest and cheapest clearing method is to slash the vegetation and then burn it. Frequently the fires get out of control and spread into protected forest areas and peat lands. Peat soils consist of decomposed plant matter that is highly flammable. The fires can burn underground for months.

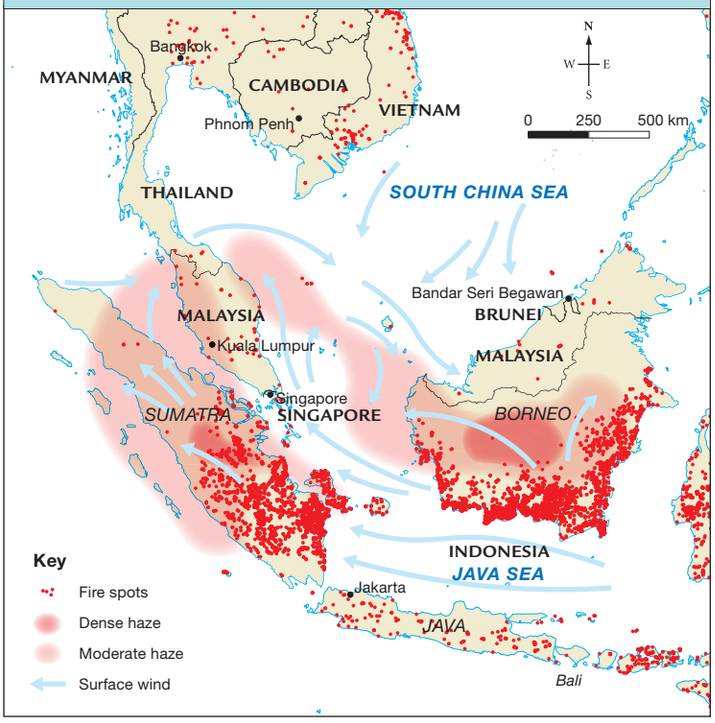
The smoke and particulates from the fires are carried by winds across South-East Asia, creating a toxic haze **A** **B**. The haze is responsible for thousands of human premature deaths and respiratory diseases. Visibility is reduced, causing the closure of schools, airports and businesses across the region. Fires also contribute to the loss of tropical rainforests — the habitat for Indonesia's threatened orangutans.

A THE SPREAD OF SMOKE FROM FIRES ON SUMATRA AND BORNEO, INDONESIA



Source: NASA image by Adam Voiland, NASA Earth Observatory, and Jeff Schmaltz, LANCE MODIS Rapid Response

B THE IMPACTS OF THE HAZE EVENT — CONDITIONS WEEK FROM 15 OCTOBER 2015



Source: NASA

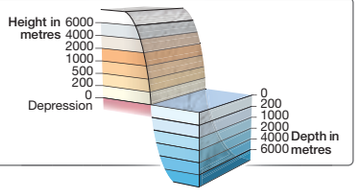




Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Key

- Lake; Dry lake
- River
- Wetland
- Mt Kinabalu 4101 m ▲ Mountain
- LAOS Country name
- Country border
- ⊛ Country capital
- Sabah State/province name
- State/territory border
- Christmas Island (Aus.) Dependency
- Hong Kong ■ Over 5 000 000 people
- Da Nang ● 1 000 000 to 5 000 000 people
- Ipoh ● 500 000 to 1 000 000 people
- Phuket ● 100 000 to 500 000 people
- Tarutung ● Under 100 000 people
- Major road
- Major railway
- World Heritage Area

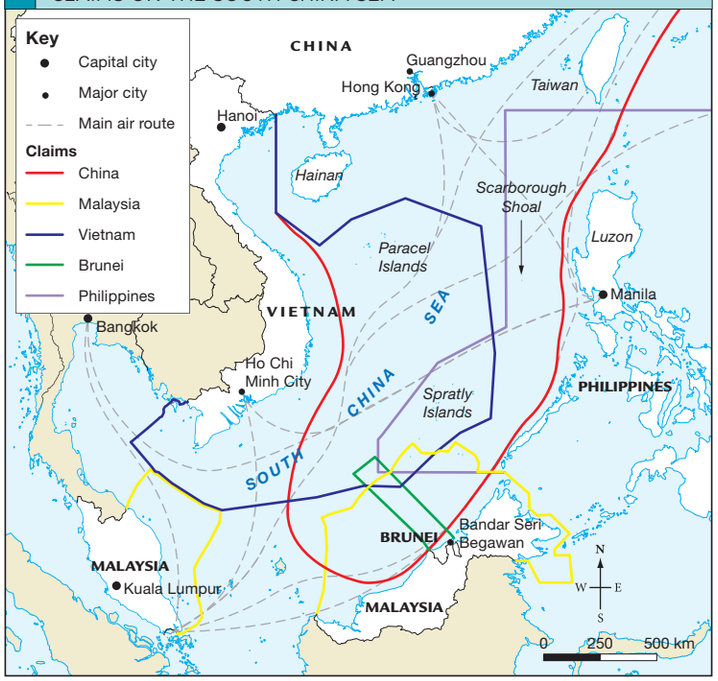


South China Sea disputes

Hundreds of small islands, rocky outcrops, atolls, sandbars and reefs, many of them barely above sea level, are found in the South China Sea. They are mostly grouped as the Paracel Islands and the Spratly Islands **A**. These largely uninhabited islands and their surrounding waters are rich fishing grounds and possibly substantial oil and gas fields. The South China Sea is a major link in the shipping and air routes between East and South-East Asia, particularly for Japan, South Korea, Taiwan, Singapore and Australia.

Ownership of the region is disputed by five countries **A**, with China claiming the largest proportion. China has become the largest island-building country, carrying out extensive dredging, adding artificial land and installing airstrip and docking facilities **B**. Vietnam, Malaysia and the Philippines have also further extended their occupied islands. Clashes, mostly between China and Vietnam, have occurred since the 1970s. Trading nations such as Japan and the United States are concerned about threats to freedom of navigation for ships and planes if the islands become militarised and a focus for further fighting.

A CLAIMS ON THE SOUTH CHINA SEA



Source: Redrawn by Spatial Vision based on information from the Centre for Strategic International Studies

B THITU ISLAND IN THE SPRATLYS IS A FORTIFIED ISLAND UNDER PHILIPPINE CONTROL, BUT CLAIMED BY CHINA AND VIETNAM.

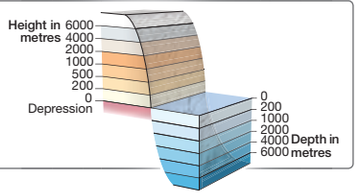




Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Key

- Lake
- River
- Wetland
- LAOS — Country name
- Country border
- Country capital
- Yangon — Over 5 000 000 people
- Da Nang — 1 000 000 to 5 000 000 people
- Hue — 500 000 to 1 000 000 people
- Tan An — 100 000 to 500 000 people
- Pyu — Under 100 000 people
- Major road
- Major railway
- World Heritage Area



Dangerous air pollution

China's rapid industrialisation has brought significant benefits to its population, especially those living in towns and cities. These benefits include higher personal incomes, better housing, and higher health and education levels. Unfortunately change has brought disadvantages. Around 62 per cent of China's energy is generated from coal, and during the winter months much of northern China relies on coal for heating as well as lighting and energy for its thousands of factories. During this season, high pressure systems can dominate northern China's weather, including still dry air. As a result, particulate matter can build to unhealthy levels. The World Health Organization recommends a daily level for particles in the atmosphere with diameters of 2.5 or less per cubic metre. Increased levels can penetrate lungs, raising the risk of stroke, heart disease, lung cancer and chronic and acute respiratory conditions.

During winter, Beijing regularly records particulate matter readings over 300, considered as unhealthy **A**. Readings in excess of 600 have been recorded for several hours at a time. Local city authorities declare a 'red alert', restricting vehicle use and open air construction and even closing schools and coal-burning factories. Individuals are advised to take special precautions by reducing outdoor exercise, wearing a mouth mask **B** and staying indoors until winds blow away the worst of the air pollution.

China's cities are not the world's worst for air pollution. In 2016, ten of the worst 20 cities were in India, together with Cairo in Egypt and Zabol in Iran.

A AIR POLLUTION ACROSS CHINA



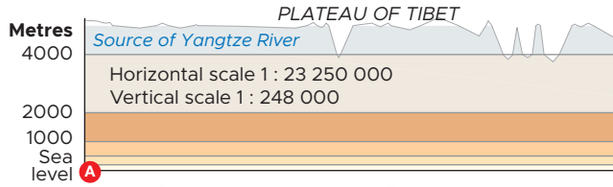
Key

Good | Moderate | Unhealthy for sensitive groups | Unhealthy

0 20 40 60 80 100

Concentration of particulate matter 2.5 micrometres and above per cubic metre of atmosphere

Contour interval 10 micrometres per cubic metre

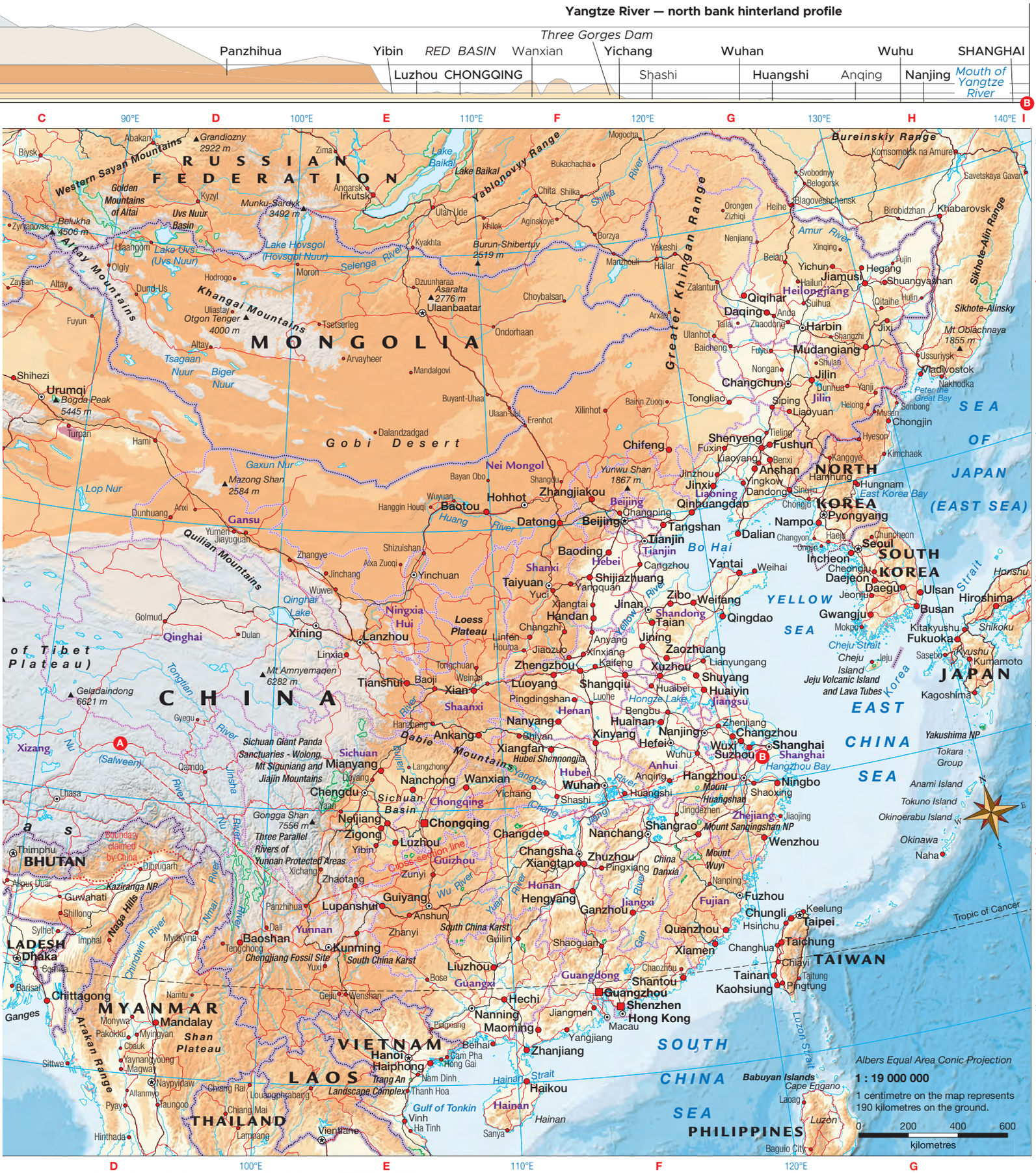




B *Mouth masks are a common sight in China's cities during high pollution periods.* ▶



Source: Berkeley Earth website, http://www.berkeleyearth.org / http://berkeleyearth.lbl.gov/manual/china_air_quality/


Yangtze River — north bank hinterland profile
Panzhihua
Yibin
RED BASIN
Wanxian
Three Gorges Dam
Yichang
Wuhan
Wuhu
SHANGHAI
Luzhou
CHONGQING
Shashi
Huangshi
Anqing
Nanjing
Mouth of Yangtze River
RUSSIAN FEDERATION
MONGOLIA
CHINA
Gobi Desert
Greater Khingan Range
Yablonovyy Range
Bureinskiy Range
Sikhote-Alin Range
Western Sayan Mountains
Altay Mountains
Khangai Mountains
Quilian Mountains
Qinghai Lake
Tsaagan Nuur
Biger Nuur
Gaxun Nur
Lop Nur
Lake Baikal
Lake Hovsgol (Hovsgol Nuur)
Lake Uvs (Uvs Nuur)
Uvs Nuur Basin
Golden Mountains of Altai
Munku-Sardyk 3492 m
Belukha 4506 m
Grandiozny 2922 m
Bogda Peak 5445 m
Mazong Shan 2584 m
Mt Amnyemaqen 6282 m
Geladaindong 6621 m
Otgon Tenger 4000 m
Asaralta 2776 m
Burun-Shibertuy 2519 m
Yunwu Shan 1867 m
Mt Oblachnaya 1855 m
Changbai Shan
Mt Changbai 2744 m
Taihang Shan
Dabie Mountains
Qinling Mountains
Nanling Mountains
Wuyi Mountains
Yunnan Plateau
Shan Plateau
Loess Plateau
Sichuan Basin
Hengduan Shan
Tibet Plateau
Yellow Sea
East China Sea
South China Sea
Bo Hai
Taiwan Strait
Hainan Strait
Luzon Strait
Gulf of Tonkin
Korea Bay
East Korea Bay
Peter the Great Bay
Sea of Japan (East Sea)
Yellow River
Yangtze River
Mekong River
Salween River
Irrawaddy River
Brahmaputra River
Ganges
Red River
Pearl River
Amur River
Lena River
Selenga River
Shilka River
Heilongjiang
Songhua Jiang
Wu River
Yuan River
Xi Jiang
Min Jiang
Han Jiang
Gan
Fuyun
Altay
Zaysan
Dund-Us
Hodrogo
Uliastay
Tsetserleg
Arvayheer
Mandalgovi
Dalandzadgad
Ondorhaan
Choybalsan
Ulaanbaatar
Erenhot
Buyant-Uhaa
Shihezi
Urumqi
Turpan
Hami
Dunhuang
Anxi
Yumen
Jiayuguan
Golmud
Dulan
Xining
Lanzhou
Linxia
Zhangye
Jinchang
Yinchuan
Wuwei
Shizuishan
Alxa Zuoqi
Hanggin Houqi
Baotou
Hohhot
Datong
Zhangjiakou
Bayan Obo
Wuyuan
Shangdu
Xilinhot
Bairin Zuoqi
Ulaan Hot
Tianshui
Baoji
Xian
Tongchuan
Weinan
Linfen
Houma
Changzhi
Jiaozuo
Luoyang
Pingdingshan
Zhengzhou
Kaifeng
Xinxiang
Anyang
Handan
Xingtai
Shijiazhuang
Yuci
Taiyuan
Yangquan
Baoding
Hebei
Shanxi
Beijing
Changping
Tianjin
Cangzhou
Dalian
Changyon
Onpyo
Haeju
Chuncheon
Seoul
Incheon
Cheongju
Daejeon
Daegu
Ulsan
Busan
Jeonju
Gwangju
Mokpo
Pyongyang
Nampo
Chongju
Kanggye
Hamhung
Hungnam
Sinuiju
Dandong
Anshan
Yingkow
Jinzhou
Liaoyang
Fushun
Benxi
Shenyang
Fuxin
Tieling
Siping
Liaoyuan
Changchun
Jilin
Dunhua
Yanji
Nakhodka
Ussuriysk
Vladivostok
Shiulan
Nongan
Tongliao
Baicheng
Ulanhot
Zhaodong
Taili
Daqing
Qiqihar
Zalantun
Arxan
Manzhouli
Hailar
Yakeshi
Nenjiang
Beian
Heihe
Orongen Zizhiqi
Blagoveshchensk
Svobodnyy
Belogorsk
Komsomolsk na Amure
Savetskaya Gavan
Khabarovsk
Birobidzhan
Yichun
Hailun
Suihua
Anda
Harbin
Shangzhi
Jixi
Hegang
Jiamusi
Fujin
Shuangyashan
Qitaihe
Hulin
Mudangiang
Jiamusi
Heilongjiang
Xinqing
Amur River
Sikhote-Alinsky
Ningxia Hui
Inner Mongolia
Nei Mongol
Shaanxi
Henan
Hubei
Hunan
Anhui
Jiangsu
Zhejiang
Fujian
Jiangxi
Guangdong
Guangxi
Yunnan
Guizhou
Sichuan
Chongqing
Shanghai
Tianjin
Beijing
Hong Kong
Macau
Taiwan
Hainan
Tibet
Xizang
Ningxia Hui
Qinghai
Gansu
Shaanxi
Shanxi
Hebei
Liaoning
Jilin
Heilongjiang
Shandong
Jiangsu
Zhejiang
Anhui
Fujian
Jiangxi
Hubei
Hunan
Henan

Trading interconnections, Korea

South Korea, with a population of almost 51 million, is the world's sixth largest exporter, with exports accounting for more than 50 per cent of its GDP. While China remains a strong trading partner, South Korean products are dispersed much further than the Asian region **A**. Samsung electronics **C** and Hyundai Motors **D** are the two largest exporting businesses within South Korea.

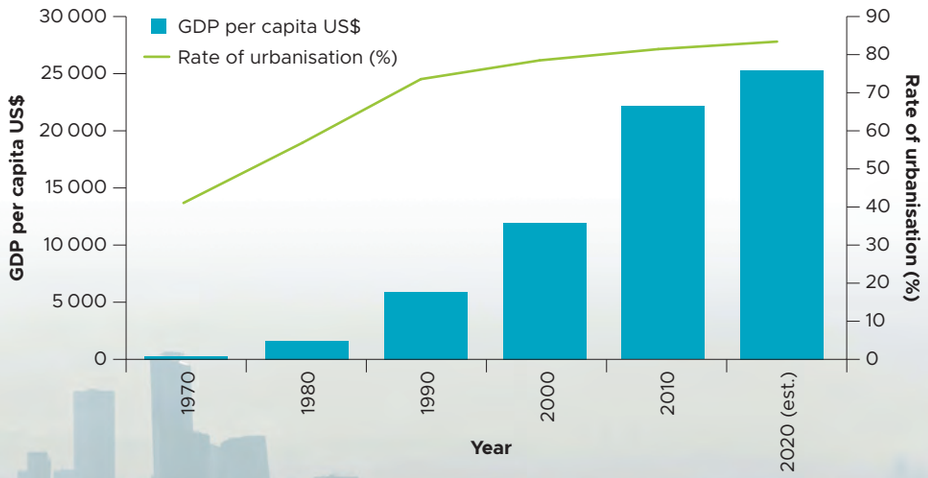
To achieve such prominence in global exports, South Korea went through a period of rapid industrialisation in the 1970s, which saw huge growth in the GDP per capita and the rate of urbanisation **B**. This period also saw the rapid development of industry, which was prioritised over ecological sustainability. One of the implications of this is air pollution, with the Environmental Performance Index ranking South Korea as 174th in its average exposure to fine particulate matter that measured 2.5 micrometres or less in diameter (PM2.5) in 2016 **E**.

A SOUTH KOREA'S TOP TRADING PARTNERS IN TERMS OF EXPORT SALES, 2016



Source: Redrawn by Spatial Vision based on the information from Trading Economics and World's Top Exports

B *Korea's growth in GDP per capita and urbanisation rate, 1970–2020* ▼



C *Samsung smartphone* ▼



D *Hyundai is a South Korean multinational company.* ▼



E *Air pollution in Seoul, September 2016* ▼



Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Key

- Lake
- River
- Wetland
- Mountain (Mt Fuji 3776 m)
- Reef
- JAPAN — Country name
- Country border
- Country capital
- Osaka — Over 5 000 000 people
- Daegu — 1 000 000 to 5 000 000 people
- Kumamoto — 500 000 to 1 000 000 people
- Nakhodka — 100 000 to 500 000 people
- Tanabe — Under 100 000 people
- Major road
- Major railway
- World Heritage Area

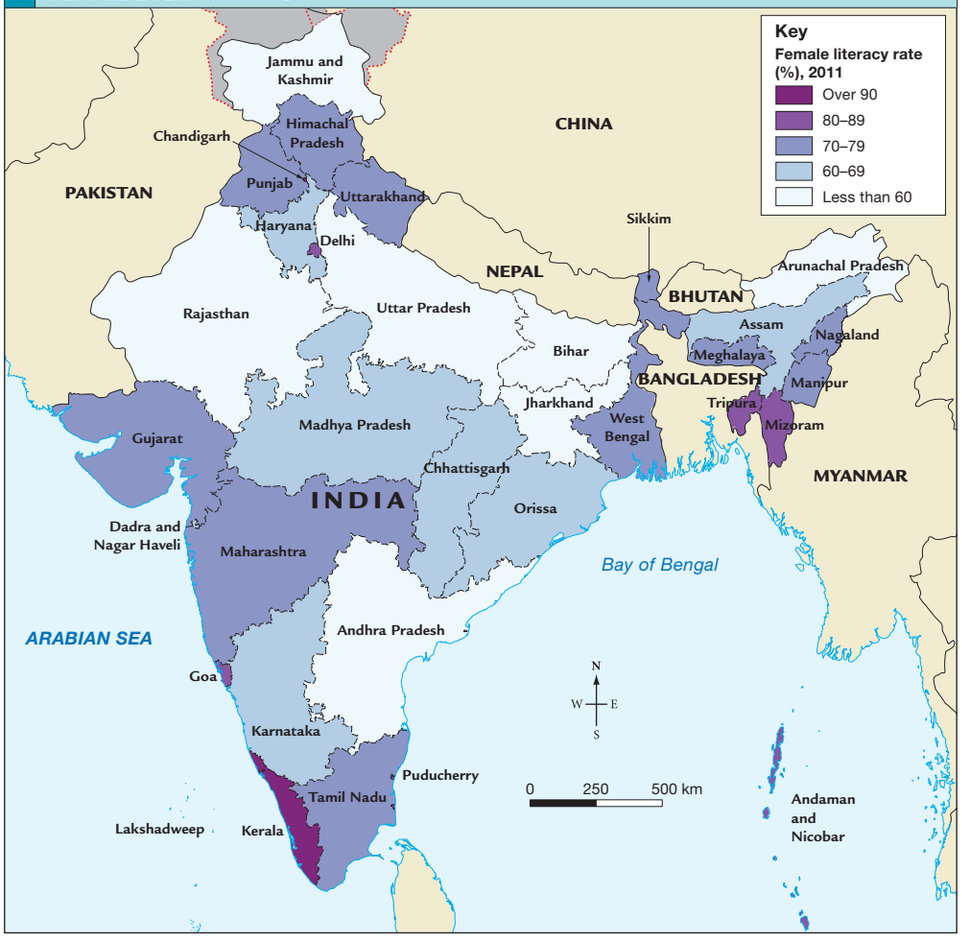
Height in metres: 6000, 4000, 2000, 1000, 500, 200, 0 Depression

Depth in metres: 0, 200, 1000, 2000, 4000, 6000

Female population, India

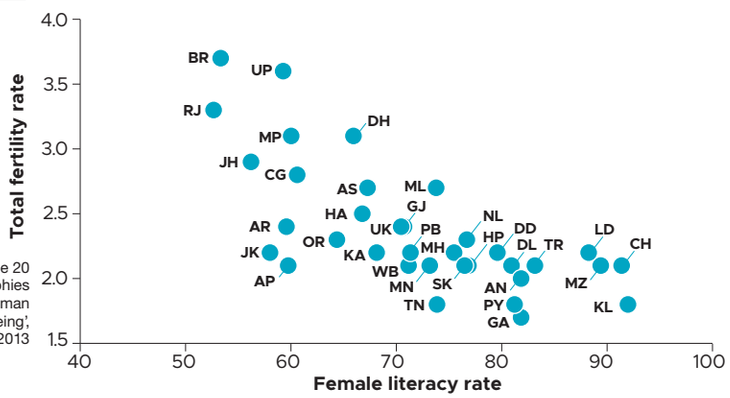
India is one of the most populous nations in the world with a growing population exceeding 1.3 billion people. Over the last two decades India's GDP per capita has improved from US$740 in 2005 to US$1400 by 2015. Although this has enabled India to make progress in education, female literacy rates vary considerably between the states **A**. The state of Kerala in south-western India has the highest literacy rate of 94 per cent with a GDP per capita of US$2100. However, Rajasthan in north-east India has a rate of 53 per cent with a GDP per capita of US$950. Not only is there a link between female literacy and GDP per capita, female literacy is strongly linked with total fertility rates (TFR) **B**. Kerala has a much lower total fertility rate of 1.8 children per woman compared with the Indian average of 2.6. Some states have very high total fertility rates, such as Bihar (3.7) with a female literacy rate of just 53 per cent. Female education will help to reduce the number of births by facilitating knowledge of, and access to, contraception and by enhancing the status of women. Kerala shows how stemming India's population growth can be achieved by promoting female education. This leads to better wellbeing in the community.

A FEMALE LITERACY IN INDIA



Source: Med India / Maps of India / India Online pages

B *Scatter graph of female literacy and total fertility in India by state (2010)* ▼



Source: page 20 of 'Geographies of Human Wellbeing', GTAV 2013

AN	Andaman and Nicobar Islands
AP	Andhra Pradesh
AR	Arunachal Pradesh
AS	Assam
BR	Bihar
CH	Chandigarh
CG	Chhattisgarh
DH	Dadra and Nagar Haveli
DD	Daman and Diu
DL	Delhi
GA	Goa
GJ	Gujarat
HR	Haryana
HP	Himachal Pradesh
JK	Jammu and Kashmir
JH	Jharkhand
KA	Karnataka
KL	Kerala
LD	Lakshadweep
MP	Madhya Pradesh
MH	Maharashtra
MN	Manipur
ML	Meghalaya
MZ	Mizoram
NL	Nagaland
OR	Orissa
PY	Puducherry
PB	Punjab
RJ	Rajasthan
SK	Sikkim
TN	Tamil Nadu
TR	Tripura
UK	Uttarakhand
UP	Uttar Pradesh
WB	West Bengal





Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Key

- Lake; Dry lake
- River
- Wetland
- Mt Everest 8848 m — Mountain
- INDIA — Country name
- Country border
- Country capital
- Bihar — State/province name
- State/province border
- State/province capital
- Pune — Over 5 000 000 people
- Surat — 1 000 000 to 5 000 000 people
- Guntur — 500 000 to 1 000 000 people
- Ratlam — 100 000 to 500 000 people
- Diu — Under 100 000 people
- Major road
- Major railway
- Disputed border
- World Heritage Area

Height in metres: 6000, 4000, 2000, 1000, 500, 200, 0, Depression

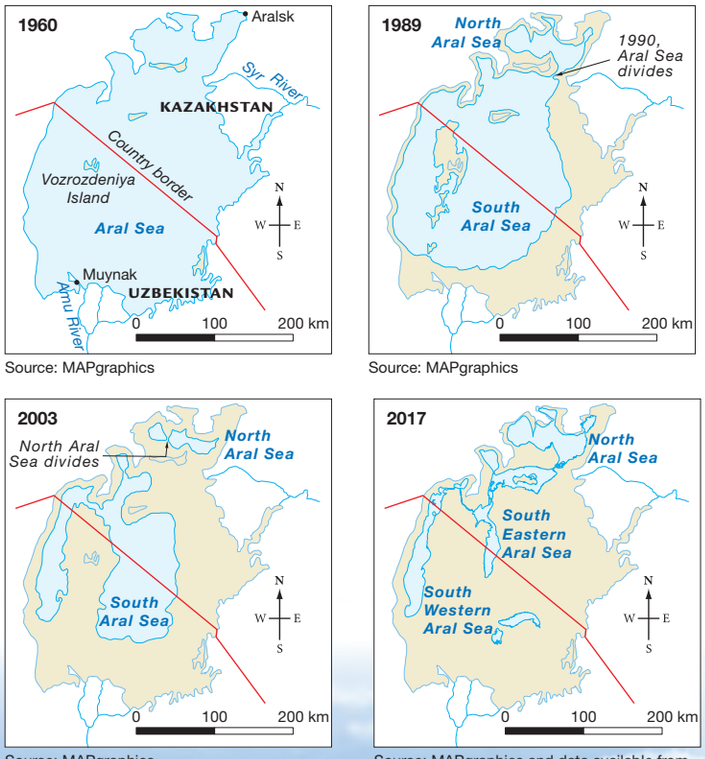
Depth in metres: 0, 200, 1000, 2000, 4000, 6000

Environmental change, Aral Sea

The degradation of the Aral Sea (D4) has been the world's biggest human-induced environmental disaster. Over the past 50 years the Aral has shrunk by 75 per cent A. The unsustainable diversion of water from the Syr and Amu rivers to irrigate water-thirsty crops, such as cotton and tobacco, cut the flow of water to the sea. Windblown salts from the exposed seabed destroyed farmland and led to illness in local populations. The local fishing industry and economy collapsed as the coastline receded B.

The Koj-Aral Dam was built in 2005 to try and save water in the North Aral Sea. The water surface has now increased by 20 per cent and the fishing industry has improved. Experts fear the South Aral Sea may eventually dry up completely.

A CHANGES IN THE ARAL SEA



Source: MAPgraphics

Source: MAPgraphics

Source: MAPgraphics

Source: MAPgraphics and data available from the U.S. Geological Survey

B *By 2001 the coastline of the Aral Sea had receded 95 kilometres from Aralsk harbour, leaving behind the ruins of a fishing industry.* ▼







Source: Natural Earth Data, www.naturalearthdata.com / ETOPO1 / WDPA

Key

- Lake; Dry lake
- River
- Mt Elbrus 5642 m ▲ Mountain
- −28 m ▼ Lowest point
- Reef
- IRAN Country name
- Country border
- Disputed border
- Country capital
- **Lahore** Over 5 000 000 people
- **Shiraz** 1 000 000 to 5 000 000 people
- Kerman 500 000 to 1 000 000 people
- Herat 100 000 to 500 000 people
- Farah Under 100 000 people
- Major road
- Major railway
- World Heritage Area

Population movements, Syria

West Asia has been dominated by conflict for the last 40 years, culminating in horrific civil war in Syria, which has given opportunity to the terrorist group Islamic State of Iraq and Syria (ISIS) since 2014. The Syrian crisis can be summarised by looking at four Septembers.

September 2012: Continued drought and the Arab Spring led to a rebellion in Northern Syria against the dictatorial regime of Bassar al-Assad. 230 000 people fled the country.

September 2013: Two million had fled, half of whom were children. They suffered malnutrition, emotional distress, lack of healthcare and education — a legacy into the future when Syria will need educated people to recover **A**. They fled mainly to Turkey, Lebanon and Jordan **B**.

September 2014: One in five people in Lebanon was a Syrian refugee. ISIS grew in the turmoil and controlled much of the north of Syria, including oil and gas fields and ancient sites like Palmyra. 600 000 fled, including Yazidis and Kurds. The Turkish border city of Surac doubled its population in a week to 800 000.

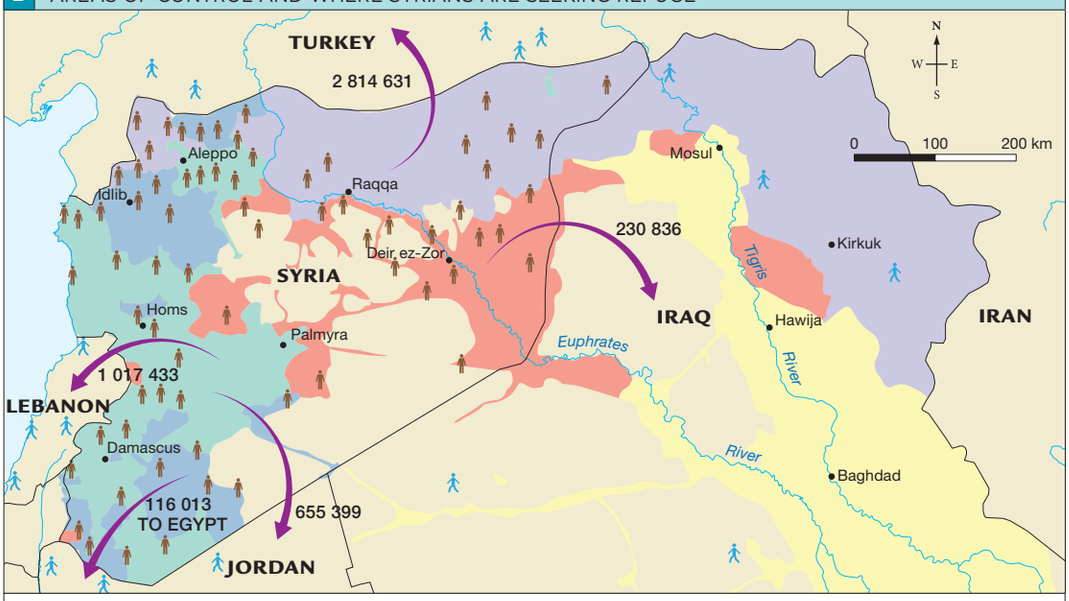
September 2015: Turkey and the United Nations were unable to provide for all the refugees and they struggled to survive. Food, healthcare, funding and shelter were all in desperately short supply. A million refugees moved out of West Asia and into Europe. There were several routes taken **C**.

September 2016: Lebanon, Jordan and Turkey restricted refugee entry — Europe made a deal with Turkey to restrict entry to Europe. Turkey allowed refugees to work. A pushback against ISIS saw their territory reduced in the north and Russian support of the Assad regime saw all rebel groups with reduced territory.

A *Syrians flee airstrikes, shelling and ill-treatment from the government and rebel forces.* ▼

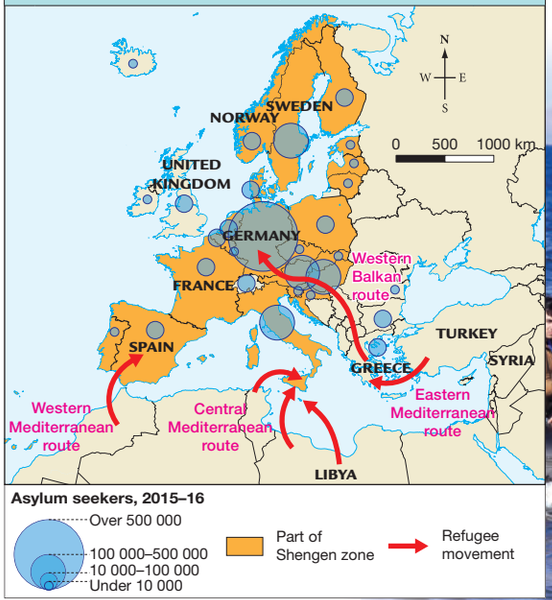


B AREAS OF CONTROL AND WHERE SYRIANS ARE SEEKING REFUGE



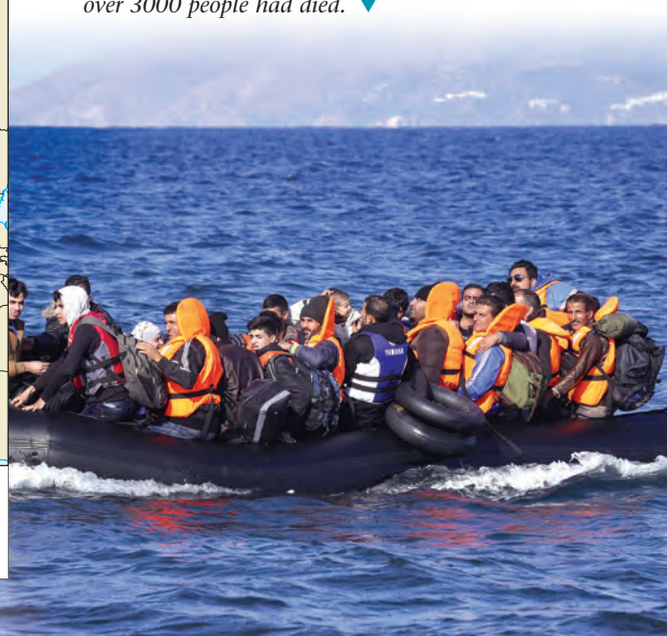
Source: Redrawn by Spatial Vision based on the information from IHS Conflict Monitor and UNHCR

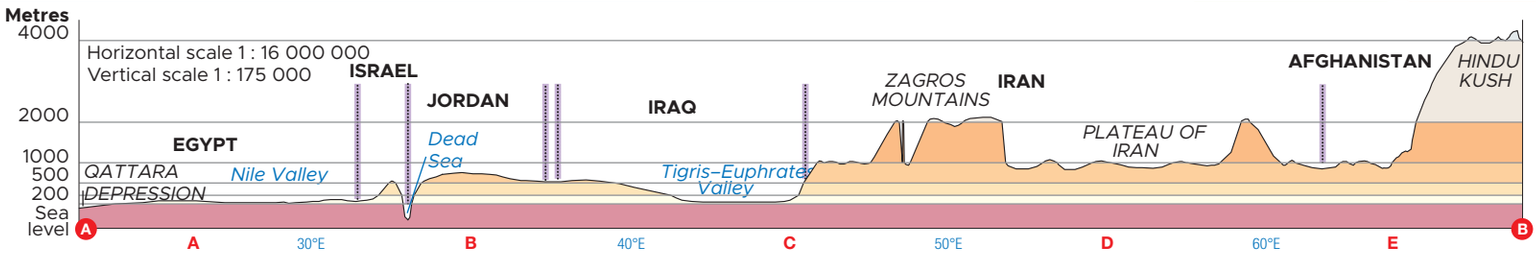
C MOVEMENT AND DESTINATIONS OF ASYLUM SEEKERS INTO EUROPE, 2015–16



Source: Eurasian Research Institute, UNHCR, Eurostat

D *The short trip from Turkey to Greece is a dangerous crossing: by 2016, over 3000 people had died.* ▼



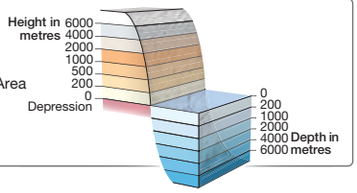




Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Key

- Lake; Dry lake
- River
- Mt Sinai 2285 m — Mountain
- Reef
- ISRAEL — Country name
- Country border
- Disputed border
- Country capital
- Socotra (Yemen) — Dependency
- Istanbul — Over 5 000 000 people
- Mecca — 1 000 000 to 5 000 000 people
- Kerman — 500 000 to 1 000 000 people
- Fasa — 100 000 to 500 000 people
- Behbehan — Under 100 000 people
- Major road
- Major railway
- World Heritage Area



Europe: human features

GEOFACTS

Largest country:
Russian Federation
17 075 200 sq km
(I4)

Smallest country:
Vatican City 0.44 sq km
(F3)

Largest population:
Russian Federation
143 439 832
(I4)

Smallest population:
Vatican City 801
(F3)

Highest population density:
Monaco 15 254 people per sq km
(E3)

Lowest population density:
Iceland 3.08 people per sq km
(C5)

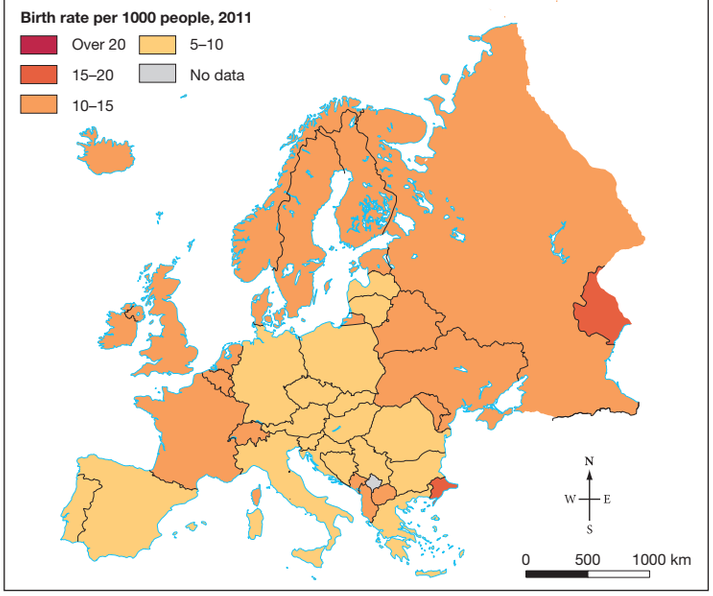
Richest country (GDP per capita):
Luxembourg US$102 000
(E3)

Poorest country (GDP per capita):
Moldova US$5 300
(G3)

St Peter's Square, Vatican City
41°54'N 12°27'E

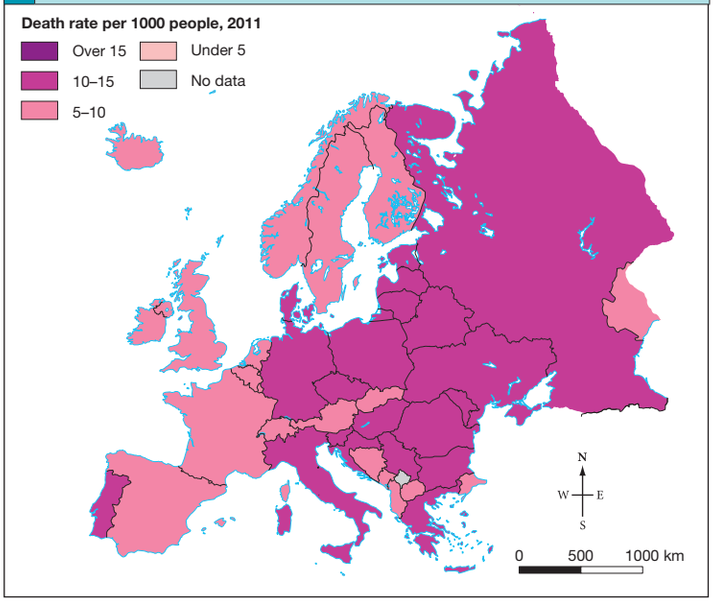


A BIRTH RATES



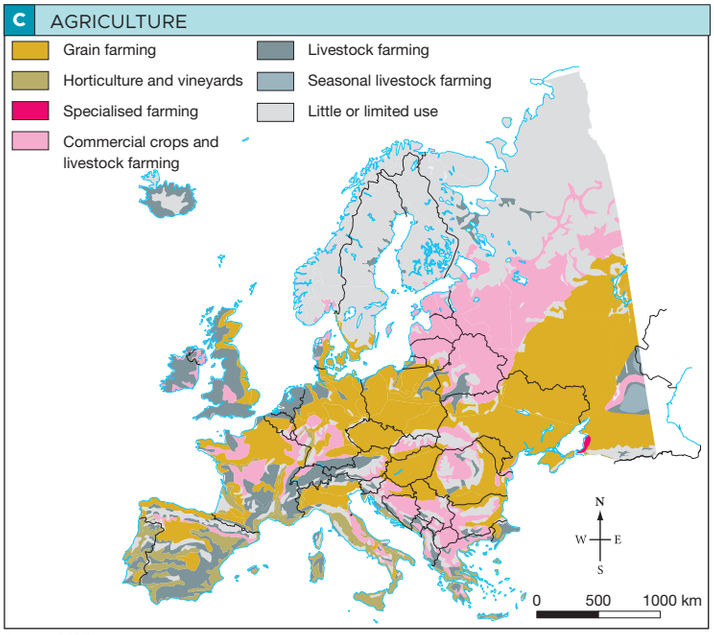
Source: Central Intelligence Agency

B DEATH RATES



Source: Central Intelligence Agency

C AGRICULTURE



Source: MAPgraphics





Source: Natural Earth Data www.naturalearthdata.com

Key

Lake	ITALY Country name	Istanbul Over 5 000 000 people	Major road
Reef	Country border	Porto 1 000 000 to 5 000 000 people	Major railway
	Country capital	Braga 500 000 to 1 000 000 people	
	Gibraltar (UK) Dependency	Vigo 100 000 to 500 000 people	
		Velikiy Novgorod Under 100 000 people	

Europe: natural features

GEOFACTS

Highest point:
Mount Elbrus (Russia)
5642 m
(I3)

Lowest point:
Caspian Sea (Russia)
–28 m
(K3)

Longest river:
Volga River (Russia)
3651 km
(I4)

Highest temperature:
Seville (Spain) 50°C
(D2)

Lowest temperature:
Ust-Shchugor (Russia)
–55°C
(J5)

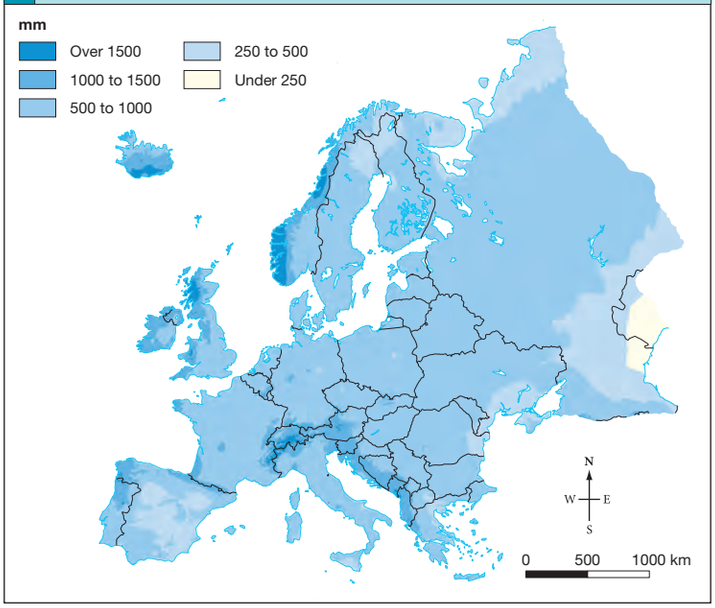
Highest annual rainfall:
Crkvice (Montenegro)
4648 mm
(F3)

Lowest annual rainfall:
Astrakan (Russia) 163 mm
(I3)

The Volga River, Russia
51°56'N 41°45'E

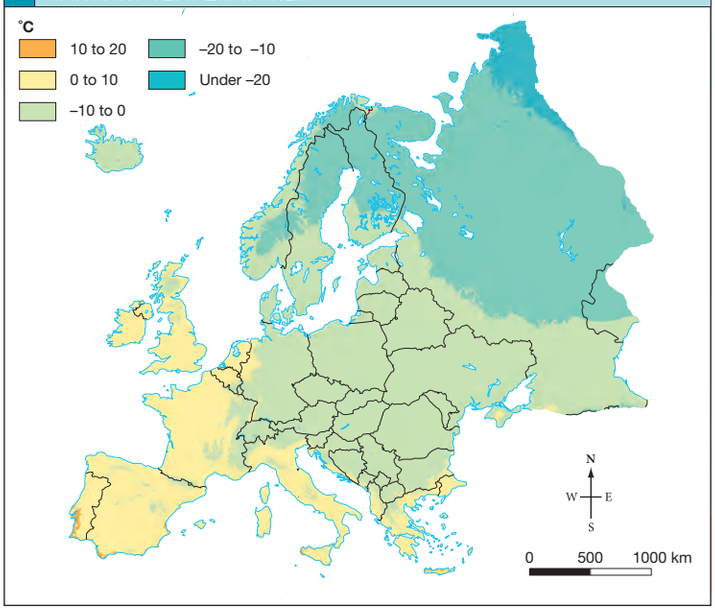


A ANNUAL RAINFALL



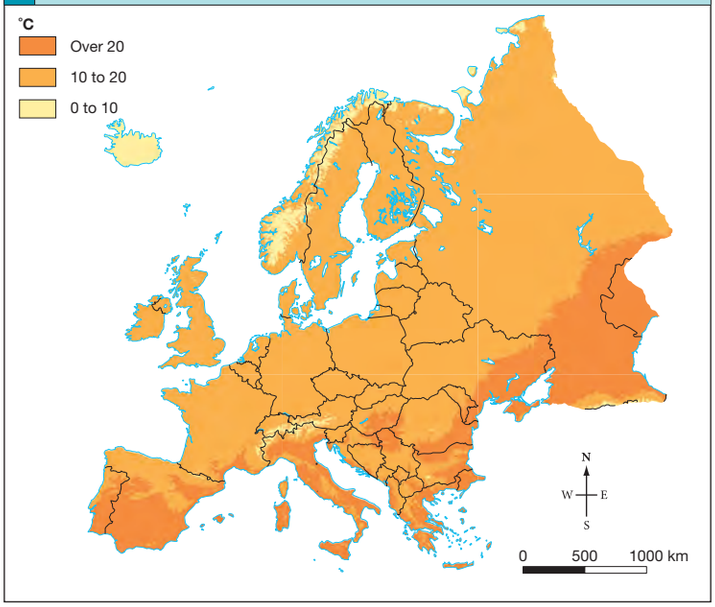
Source: WorldClim

B JANUARY TEMPERATURES

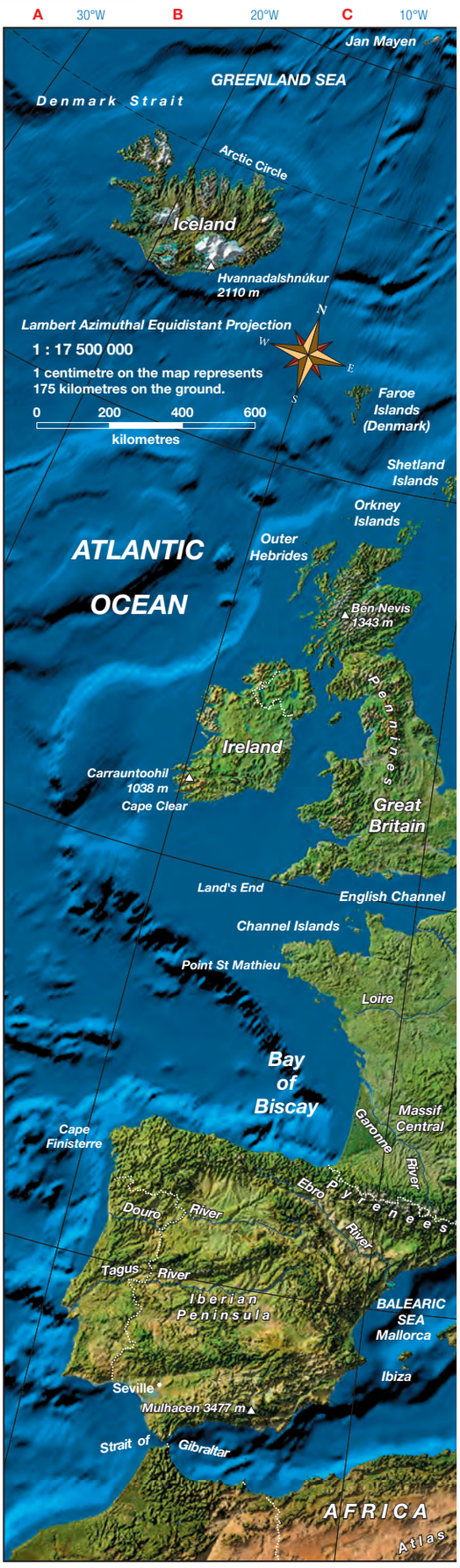


Source: WorldClim

C JULY TEMPERATURES



Source: WorldClim





Source: © WorldSat International, 2017

Key

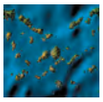

Delta and river


Desert


Forest


Lake


Mountains


Islands


Seamounts


Country borders

Copenhagen: bicycle city

Denmark's capital city of Copenhagen, with approximately 1.5 million people and over 600 000 bicycles, is probably the world's most successful bicycle city. Widespread bicycle use adds to the city's high level of liveability, helps reduce pollution levels and fossil fuel use, as well as providing low-cost travel for students, working people, retirees and visitors.

More than half of Copenhagen's residents bike to work, using some of the city's 400 kilometres of bicycle lanes. A third of all shopping trips are now by bicycle. Users are encouraged by the short distances to work and the flat landscape, as well as the city's planned cycling infrastructure. Although bicycle paths date from 1892, modern infrastructure of footpath–bike lane–car parking space–roadway now features throughout the city **A**. There are green routes through parks and other open spaces. In central Copenhagen, traffic lights are timed for bicycles, not cars. Cycle Snake, for example, is an elevated, curved cyclist road built above rather than through a shopping centre full of slower-moving pedestrians **B** **C**.

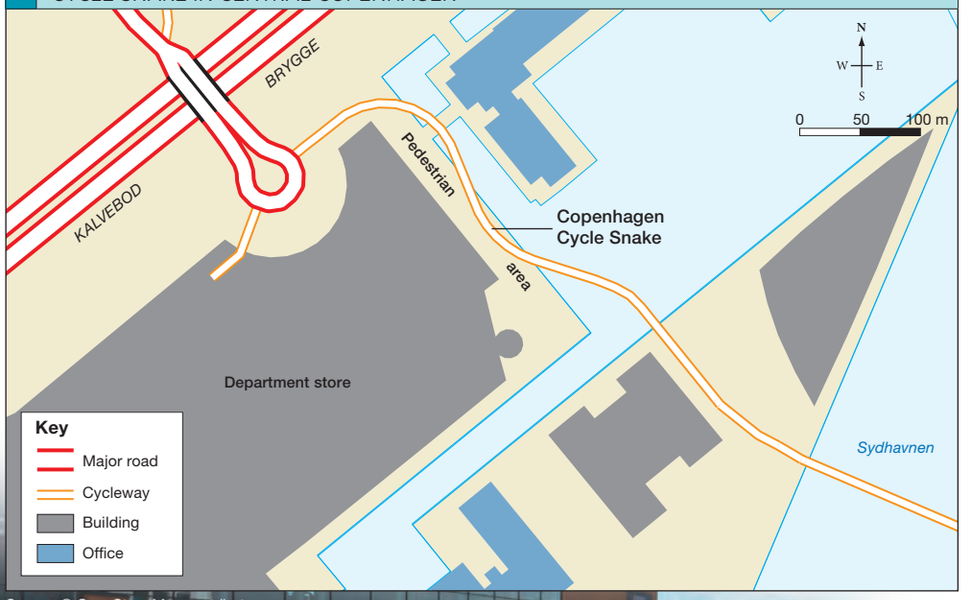
The City of Copenhagen's Bicycle Strategy 2011–2025 aims to extend and improve bicycle routes, helping to add to residents' and visitors' comfort, speed and safety.

Other places in the world have begun to 'Copenhagenise' their car-based urban areas: Barcelona, Paris, New York and Melbourne, for example.



A *Some of Copenhagen's regular cyclists* ▶

B CYCLE SNAKE IN CENTRAL COPENHAGEN



Source: © OpenStreetMap contributors



C *Cycle Snake's route above existing roadways* ▶

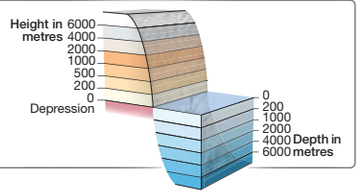




Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Key

- Lake
- River
- Carrauntoohil 1038 m ▲ Mountain
- FRANCE Country name
- Country border
- Country capital
- Faeroe Islands (Denmark) Dependency
- Moscow ■ Over 5 000 000 people
- Hamburg ● 1 000 000 to 5 000 000 people
- Hannover ● 500 000 to 1 000 000 people
- Orleans ● 100 000 to 500 000 people
- Visby ● Under 100 000 people
- Major road
- Major railway
- World Heritage Area



Transport interconnections

The Gotthard Base Tunnel **B** is the latest in a series of tunnels built under The Alps of Europe to link central and southern Europe **A**. Since June 2016 the twin rail tunnel has become the world's longest at 57.1 kilometres and the deepest where it reaches 2.3 kilometres below the Swiss Alps. The rail tunnels have the capacity to replace around 1 million lorries a year from the already overcrowded and winding roads, reduce road accidents and lower environmental pollution **C**.

Importantly, travelling time between central and southern Europe, such between Zurich and Milan, could be reduced by an hour. The project took 17 years and approximately $20 billion to complete.

A TRANSPORT INTERCONNECTIONS BETWEEN CENTRAL AND SOUTHERN EUROPE

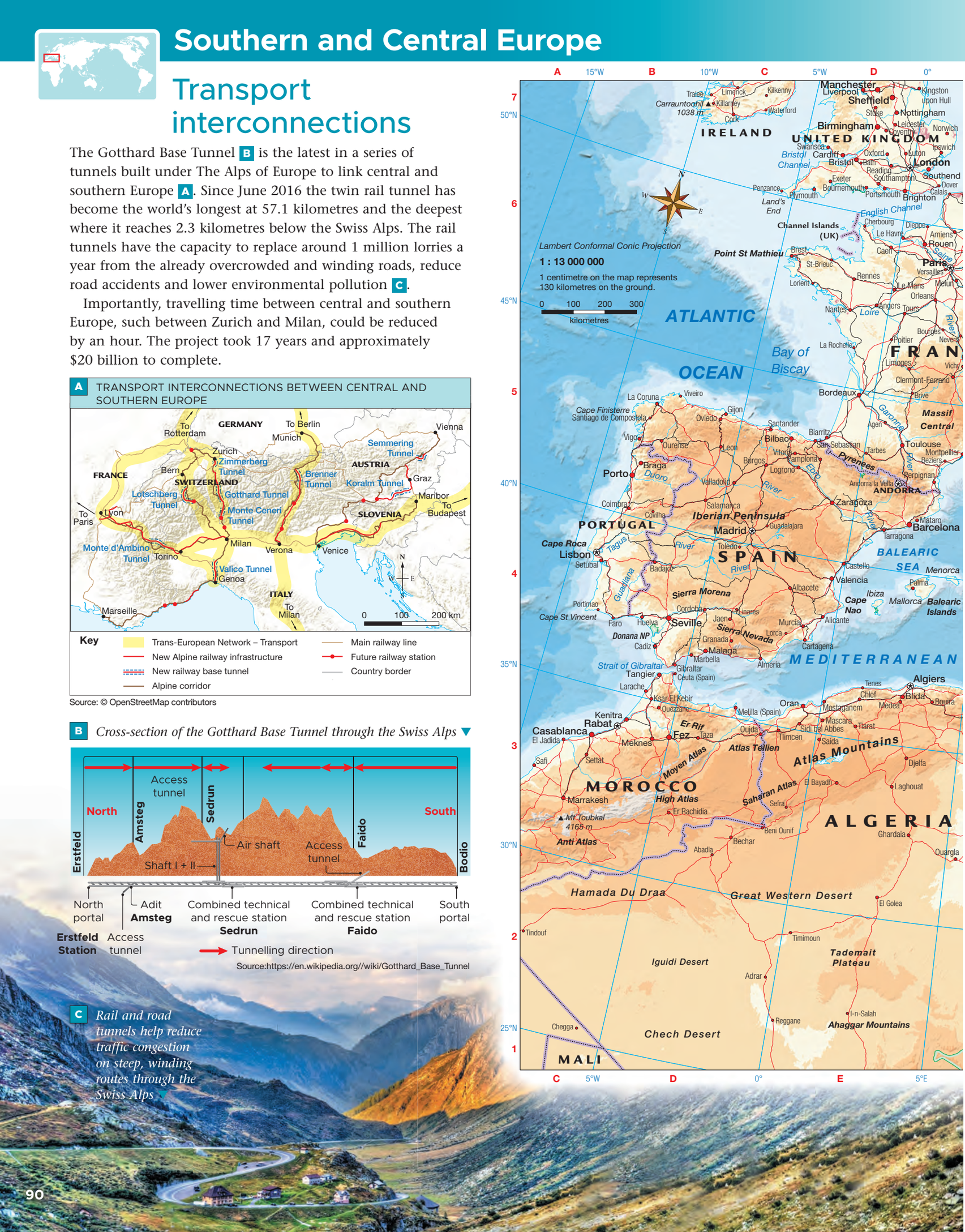
Key

- Trans-European Network – Transport
- New Alpine railway infrastructure
- New railway base tunnel
- Alpine corridor
- Main railway line
- Future railway station
- Country border

Source: © OpenStreetMap contributors

B *Cross-section of the Gotthard Base Tunnel through the Swiss Alps* ▼

Source:https://en.wikipedia.org//wiki/Gotthard_Base_Tunnel



C *Rail and road tunnels help reduce traffic congestion on steep, winding routes through the Swiss Alps* ▼

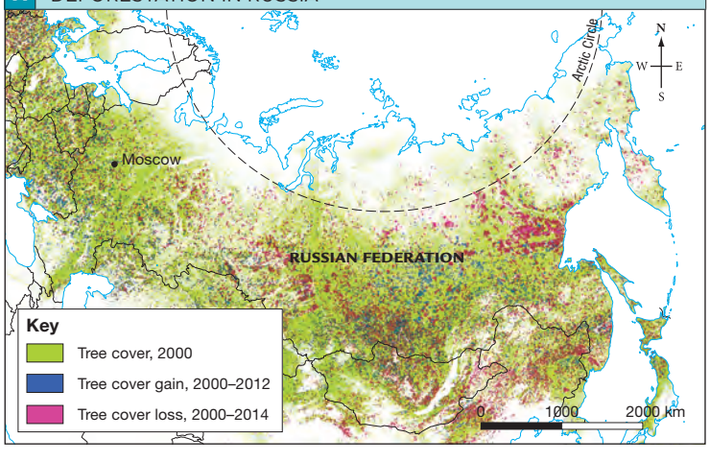

NORTH SEA
Frisian Islands
The Wadden Sea
NETHERLANDS
Amsterdam
The Hague
Rotterdam
Utrecht
Groningen
Leeuwarden
GERMANY
Hamburg
Bremen
Hannover
Berlin
Dortmund
Essen
Düsseldorf
Köln
Bonn
Frankfurt
Wiesbaden
Mannheim
Heidelberg
Saarbrücken
Stuttgart
Karlsruhe
Nürnberg
Munich
Augsburg
Regensburg
Ingolstadt
Passau
Freiburg
Basel
Zürich
LIECHTENSTEIN
SWITZERLAND
Bern
Luzern
Genève
Lausanne
Interlaken
Matterhorn 3883 m
Mt Blanc 4807 m
The Dolomites
Alps
BELGIUM
Brussels
Antwerp
Ghent
Lille
Liège
LUXEMBOURG
Luxembourg
Metz
Nancy
Strasbourg
Mulhouse
Dijon
Besançon
Troyes
Reims
Lyon
Saint-Etienne
Grenoble
Nice
Marseille
Monaco
Toulon
Aix-en-Provence
Nîmes
Gulf of Lions
LIGURIAN SEA
Genoa
San Remo
Milan
Turin
Asti
Novara
Bergamo
Trento
Verona
Venice
Treviso
Udine
Trieste
Modena
Parma
Ferrara
Bologna
Ravenna
Pisa
Livorno
Siena
Arezzo
Perugia
Ancona
Florence
SAN MARINO
San Marino
ITALY
Corsica
Bastia
Ajaccio
Civitavecchia
VATICAN CITY
Rome
L'Aquila
Pescara
Sardinia
Cagliari
Sassari
Olbia
Naples
Mt Vesuvius 1281 m
Salerno
Benevento
Caserta
Foggia
Barletta
Bari
Brindisi
Tarante
Lecce
Aeolian Islands
Vibo Valentia
Catanzaro
Crotone
Palermo
Messina
Mt Etna 3322 m
Reggio di Calabria
Taormina
Catania
Siracusa
Ragusa
Marsala
Sicily
Cape Bon
Bizerte
Bejaia
Skikda
Annaba
Beja
Tunis
Constantine
Setif
Souk Ahras
El Kef
Batna
Tebessa
Blekra Mt Chelia 2328 m
Nabeul
Sousse
Qairouan
Kasserine
Sfax
Gafsa
Tozeur
Gulf of Gabes
Gabes
Zarzis
El Oued
Touggourt
TUNISIA
Ben Gardane
Zuwarah
Tripoli
Az Zawiyah
Al Khums
Misratah
Dehibat
Nalut
Gharyan
Bani Walid
Hassi Messaoud
Mizdah
Great Eastern Desert
Ghadamis
Dirj
Tinrhert
Hamada
I-n-Amenas
Tassili n'Ajjer NP
Illizi
Birak
Umm al Abid
Sabha
Al Haruj Al Aswad
Hun
Jabal as Sawda
Zillah
LIBYA
Maradah
Awjilah
Sand Sea of Calanscio
Libyan Desert
Great Sand Sea
Gulf of Sidra
Benghazi
Al Marj
Al Bayda
Shahhat
Darnah
Tubruq
Qaminis
Ajdabiya
As Sidr
Al Uqaylah
Al Jaghbub
Siwa
Libyan Plateau
EGYPT
Matruh
Salum
Alexandria
El Daba
Dumyat
Rashid
Port Said
El Arish
ISRAEL
Gaza
Beer Sheva
Jerusalem
Tel Aviv-Yafo
Nablus
As Salt
Al Khalil
Haifa
Nazareth
Irbid
Jenin
Tartus
Hims
Ammochostos
Trablous
LEBANON
Beirut
Sidon
Al Qunaytirah
Lemosos
Nicosia
CYPRUS
Cyprus is divided between the Northern Turkish Cypriots and the Southern Greek Cypriots.
Boundary claimed by Israel
Port Said
Ismailia
El Mansura
Damanhur
Tanta
El Alamein
Suez
Giza
Cairo
Arabian Peninsula
Mt Sinai 2285 m
El Tur
Wadi Al-Hitan (Whale Valley)
El Faiyum
Beni Suef
Beni Mazar
Samalut
El Minya
Mallawi
Asyut
Eastern Desert
Hurghada
Bur Safaga
Sohag
Girga
Qena
Luxor
Isna
Qasr Farafra
Western Desert
El Qasr
El Kharga
Nile River
Sinai
Crete
Cyclades
Rhodes
Karpathos
SEA OF CRETE
Hania
Iraklio
Sitia
Kerkyra
Corfu
Ionian Islands
GREECE
Ioannina
Larissa
Volos
Lesbos
Mytilini
Thessaloniki
Kavala
Alexandroupoli
Gallipoli
Canakkale
Dardanelles
Mt Olympus 2917 m
Katerini
Kalamata
Sparti
Cape Tainaron
Peloponnese
Patra
Pirgos
Tripoli
Corinth
Athens
Thebes
Chalkida
Agrinio
Hios
Izmir
Aydin
Manisa
Soke
Ermoupoli
Kos
Mugla
Denizli
Antalya
Taurus Mountains
AEGEAN SEA
IONIAN SEA
MEDITERRANEAN SEA
Cape Ince
Istanbul
Bursa
Eskisehir
Balikesir
Kutahya
Afyon
Usak
Ankara
Kirikkale
Polatli
Kocaeli
Adapazari
Bolu
Corum
Zonguldak
Karabuk
Amasya
Samsun
Pontic Mountains
Ordu
Giresun
Trabzon
Rize
Artvin
Kars
Erzurum
Erzincan
Sivas
Tokat
Amasya
Kayseri
Goreme NP
Kahramanmaras
Gaziantep
Adana
Tarsus
Iskenderun
Hatay
Icel
Izmir
Konya
Eregli
Karaman
Samandagi
Iskenderun
Kilis
Aksaray
Nevsehir
Kirsehir
Yozgat
Cankiri
Kastamonu
Sinop
Bafra
Turkey
TURKEY
SYRIA
Al Ladhiqiyah
Hamah
Homs
Idlib
Aleppo
Ar Raqqah
Dayr az Zawr
Al Hasakah
Qamishli
Ras al Ayn
Tall Abyad
Manbij
Ar Raqqah
Euphrates
Tigris
Mosul
Dohuk
Zakho
Duhok
Arbil
Kirkuk
Sulaymaniyah
Halabja
Khanaqin
Mandali
Baqubah
Ba'qubah
Diyala
Baghdad
Al Anbar
Ramadi
Fallujah
Karbala
An Najaf
Al Hillah
Al Kufah
Al Qadisiyah
Ad Diwaniyah
Al Amarah
Al Basrah
Az Zubayr
Umm Qasr
Khawr Abd Allah
Persian Gulf
Kuwait
Kuwait City
Al Jahra
Ash Shuwaykh
Mina al Ahmadi
Ahmadi
Al Farwaniyah
Hawalli
Jahra
Safwan
Ar Rutbah
Al Qaim
Haditha
Hit
Ramadi
Fallujah
Baghdad

Biomes

Russia is home to almost one-fifth of the world's forest areas, with the Russian boreal forests representing the largest forested region on Earth. Additionally, these forests contain several significant Global 200 eco-regions, which represent some of the world's most biologically outstanding habitats, such as the Eastern-Siberian Taiga **C**.

Despite their environmental significance, the forests remain a major source of softwood timber resources in Russia, supporting over 1 million jobs in the forestry industry. However, beneath one-third of the boreal forest in Russia lies permafrost — a soil that remains frozen for at least two years. As the rate of deforestation in Russia increases **A**, so does the rate of exposed permafrost. This results in the melting of the once-frozen soil, which not only undermines buildings and infrastructure **B** but also has the potential to release significant amounts of methane into the atmosphere.

A DEFORESTATION IN RUSSIA



Source: Hansen / UMD / Google / USGS / NASA

B *Melting permafrost causing power lines to fall.* ▼

C *Eastern-Siberian Taiga* ▼






Lambert Azimuthal Equidistant Projection
1 : 25 000 000
1 centimetre on the map represents 250 kilometres on the ground.
0 200 400 600
kilometres
ARCTIC OCEAN
BARENTS SEA
KARA SEA
LAPTEV SEA
EAST SIBERIAN SEA
CHUKCHI SEA
BERING SEA
SEA OF OKHOTSK
SEA OF JAPAN
(EAST SEA)
YELLOW SEA
RUSSIAN FEDERATION
MONGOLIA
CHINA
NORTH KOREA
SOUTH KOREA
Spitsbergen
Edgeoya
Svalbard and Jan Mayen Islands (Norway)
Nordaustlandet
Franz Josef Land
Severnaya Zemlya
Novaya Zemlya
Belyy Island
Vaygach Island
Yamal Peninsula
Ushakova Island
Cape Arkticheskiy
Komsomolets Island
Bolshevik Island
October Revolution Island
Vilkitskogo Strait
Cape Zhelaniya
Mt Blednaya 1052 m
Cape Chelyuskin
New Siberian Islands
Bear Islands
Lyakhov Islands
Zemlya Bunge
Cape Shelagski
Ayon Island
Wrangel Island
Point Hope
Kotzebue Sound
Nome
Uelen
Enurmino
Chukchi Peninsula
Providenya
Mys Shmidta
Egvekinot
Zvezdnyy
Gulf of Anadyr
Cape Navarin
Anadyr
Pevek
Chukchi Range
Arctic Circle
Anadyr River
Koryak Range
International Date Line
Ambarchik
Bilibino
Mikhalkino
Omolon River
Kolyma River
Kolyma Range
Mt Ledyanaya 2562 m
Cape Olyutorskiy
Pakhachi
Karaginskiy Island
Cape Ozernoy
Palana
Shelikhova Gulf
Kamchatka Peninsula
Bering Island
Klyuchevskaya Sopka 4750 m
Volcanoes of Kamchatka
Petropavlovsk Kamchatskiy
Magadan
Mus-Khaya 2959 m
Okhotsk
Oktyabrskiy
Cape Lopatka
Cape Yelizavety
Okha
Sakhalin
Nikolayevsk na Amure
Gora Lopatina 1609 m
Cape Terpeniya
Poronaysk
Uglegorsk
Tatar Strait
Kuril Islands
Boundary claimed by Japan
Shantar Islands
Udd Bay
Dzhugdzhur Range
Stanovoy Range
Yablonovyy Range
Burpeyskiy Range
Greater Khingan Range
Komsomolsk na Amure
Savetskaya Gavan
Yuzhno Sakhalinsk
Cape Aniva
Khabarovsk
Birobidzhan
Blagoveshchensk
Svobodnyy
Tynda
Amur River
Ussuri River
Central Sikhote-Alin
Hokkaido
Sapporo
Otaru
Asahikawa
Kushiro
Obihiro
Muroran
Hakodate
Aomori
Hachinohe
Morioka
Akita
Sakata
Sendai
Fukushima
Niigata
Nagaoka
Nagano
Tokyo
Yokohama
Shizuoka
Nagoya
Hamamatsu
Honshu
Kyoto
Osaka
Kobe
Hachijo Island
Okayama
Hiroshima
Kitakyushu
Fukuoka
Kyushu
Kagoshima
Cape Sata
Cheju Island
Jeju Volcanic Island and Lava Tubes
Lena Pillars Nature Park
Lena River
Aldan River
Yana River
Indigirka River
Verkhoyansk Range
Cherskiy Range
Chersky
Verkhoyansk
Ust Kuyga
Nizhneyansk
Tiksi
Lena Delta
Gulf of Yana
Dmitriy Laptev Strait
Shalaurova
Khatanga
North Siberian Lowland
Putorana Plateau
Taymyr Peninsula
Dudinka
Norilsk
Igarka
Dikson
Nordvik
Vorkuta
Salekhard
Novyy Port
Russanovo
Kheta River
Taz River
Yenisey River
Ob River
Yuribey River
Pur River
Nadym River
Khanty-Mansiysk
Surgut
Nizhnevartovsk
Noginsk
Ekonda
Udachnyy
Vilyuysk
Yakutsk
Ust Maya
Khandyga
Mirnyy
Suntar
Lensk
Olenek
Olenek River
Kotuy River
Lower Tunguska River
Tunguska River
Central Siberian Plateau
Vilyuy River
Western Siberian Plain
Siberia
Angara River
Lesosibirsk
Kirensk
Inyaptuk Golets 2578 m
Vitim River
Olekma River
Neryungri
Aldan
Tura
Zhigansk
Natara
Verkhoyansk
Omsk
Tomsk
Novosibirsk
Kemerovo
Krasnoyarsk
Tayshet
Bratsk
Ust Kut
Lake Baikal
Irkutsk
Angarsk
Cheremkhovo
Chita
Mogocha
Yablonovyy Range
Shilka River
Greater Khingan Range
Nenjiang
Yichun
Hegang
Shuangyashan
Jiamusi
Qitaihe
Jixi
Mudanjiang
Harbin
Daqing
Qiqihar
Zalantun
Hailar
Manzhouli
Yakeshi
Ulan Ude
Aginskoye
Borzya
Burun-Shibertuy 2519 m
Hovsgol Lake
Uvs Nuur Basin
Ulaangom
Olgiy
Moron
Hodrogo
Choybalsan
Ozuunharaa
Ulaanbaatar
Ondorhaan
Ulanhot
Baicheng
Tongliao
Changchun
Jilin
Liaoyuan
Chongjin
Ussuriysk
Nakhodka
Vladivostok
Yanji
Shenyang
Fushun
Fuxin
Anshan
Liaoyang
Benxi
Hamhung
Wonsan
Dandong
Jinzhou
Yingkow
Jinxi
Pyongyang
Nampo
Kaesong
Chuncheon
Seoul
Incheon
Daejeon
Daegu
Ulsan
Busan
Gwangju
Dalian
Tangshan
Tianjin
Beijing
Chifeng
Zhangjiakou
Qinhuangdao
Hohhot
Datong
Baoding
Hanggin Houqi
Yangquan
Shijianzhuang
Taiyuan
Yinchuan
Jinan
Taian
Qingdao
Handan
Changzhi
Anyang
Lianyungang
Huang River
Yellow River
Altay
Zaysan
Uliastay
Otgon Tenger 4000 m
Khangai Mountains
Altay Mountains
Tian Shan
Gobi Desert
Lang Mountains
Mazong Shan 2584 m
Tarim River
Tarim Basin
Dunhuang
Turpan
Hami
Kuqa
Korla
Karamay
Fuyun
Zharkent
Urumqi
Shihezi
Xinjiang Tianshan
Yining
Qiemo
Ulugh Muztag 6973 m
Plateau of Tibet
Golden Mountains of Altai
Western Sayan
Munku-Sardyk 3492 m
Belukha 4506 m
Grandiozny 2922 m
Kyzyl
Abakan
Prokopyevsk
Novokuznetsk
Barnaul
Biysk
Rubtsovsk
Gorno Altaysk
Semey
Oskemen
Zyryanovsk
Ayakoz
Lake Zaysan
Urzhar
Sarqan
Zharkent
Dund-Us
Olgiy
Selenga River
Orkhon River
Onon River
Shilka River
Amur River
Ussuri River
Songhua River
Liao River
Taz River
Yenisey River
Ob River
Irtysh River
Lena River
Vitim River
Olekma River
Aldan River
Yana River
Indigirka River
Kolyma River
Omolon River
Anadyr River
Amur River
Lake Baikal
Lake Hovsgol
Lake Zaysan
Lake Uvs Nuur
Lake Khanka
Lake Xingkai
Lake Buyan-Uhaa
Lake Ulaan-Uul
Lake Xilinhot
Lake Erenhot
Lake Mandalgovi
Lake Arvayheer
Lake Ondorhaan
Lake Choybalsan
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Lake Moron
Lake Hodrogo
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Lake Olgiy
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Lake Tsetserleg
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Lake Shantar Islands
Lake Udd Bay
Lake Dzhugdzhur Range
Lake Stanovoy Range
Lake Yablonovyy Range
Lake Burpeyskiy Range
Lake Greater Khingan Range
Lake Komsomolsk na Amure
Lake Savetskaya Gavan
Lake Tatar Strait
Lake Kuril Islands
Lake Cape Terpeniya
Lake Gora Lopatina 1609 m
Lake Sakhalin
Lake Cape Lopatka
Lake Oktyabrskiy
Lake Okhotsk
Lake Petropavlovsk Kamchatskiy
Lake Volcanoes of Kamchatka
Lake Kamchatka Peninsula
Lake Klyuchevskaya Sopka 4750 m
Lake Bering Island
Lake Cape Ozernoy
Lake Palana
Lake Shelikhova Gulf
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Lake Mt Ledyanaya 2562 m
Lake Koryak Range
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Lake Lake Lake Dalian
Lake Lake Lake Incheon
Lake Lake Lake Seoul
Lake Lake Lake Daejeon
Lake Lake Lake Daegu
Lake Lake Lake Ulsan
Lake Lake Lake Busan
Lake Lake Lake Gwangju
Lake Lake Lake Kitakyushu
Lake Lake Lake Fukuoka
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Lake Lake Lake Kagoshima
Lake Lake Lake Cape Sata
Lake Lake Lake Cheju Island
Lake Lake Lake Jeju Volcanic Island and Lava Tubes
Lake Lake Lake Honshu
Lake Lake Lake Hachijo Island
Lake Lake Lake Okayama
Lake Lake Lake Hiroshima
Lake Lake Lake Kobe
Lake Lake Lake Osaka
Lake Lake Lake Kyoto
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Lake Lake Lake Shizuoka
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Lake Lake Lake Kawagoe
Lake Lake Lake Sendai
Lake Lake Lake Fukushima
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Lake Lake Lake Morioka
Lake Lake Lake Hachinohe
Lake Lake Lake Aomori
Lake Lake Lake Hakodate
Lake Lake Lake Muroran
Lake Lake Lake Kushiro
Lake Lake Lake Obihiro
Lake Lake Lake Asahikawa
Lake Lake Lake Kitami
Lake Lake Lake Otaru
Lake Lake Lake Sapporo
Lake Lake Lake Yuzhno Sakhalinsk
Lake Lake Lake Cape Aniva
Lake Lake Lake Poronaysk
Lake Lake Lake Uglegorsk
Lake Lake Lake Nikolayevsk na Amure
Lake Lake Lake Okha
Lake Lake Lake Cape Yelizavety
Lake Lake Lake Shantar Islands
Lake Lake Lake Udd Bay
Lake Lake Lake Dzhugdzhur Range
Lake Lake Lake Stanovoy Range
Lake Lake Lake Yablonovyy Range
Lake Lake Lake Burpeyskiy Range
Lake Lake Lake Greater Khingan Range
Lake Lake Lake Komsomolsk na Amure
Lake Lake Lake Savetskaya Gavan
Lake Lake Lake Tatar Strait
Lake Lake Lake Kuril Islands
Lake Lake Lake Cape Terpeniya
Lake Lake Lake Gora Lopatina 1609 m
Lake Lake Lake Sakhalin
Lake Lake Lake Cape Lopatka
Lake Lake Lake Oktyabrskiy
Lake Lake Lake Okhotsk
Lake Lake Lake Petropavlovsk Kamchatskiy
Lake Lake Lake Volcanoes of Kamchatka
Lake Lake Lake Kamchatka Peninsula
Lake Lake Lake Klyuchevskaya Sopka 4750 m
Lake Lake Lake Bering Island
Lake Lake Lake Cape Ozernoy
Lake Lake Lake Palana
Lake Lake Lake Shelikhova Gulf
Lake Lake Lake Karaginskiy Island
Lake Lake Lake Cape Olyutorskiy
Lake Lake Lake Pakhachi
Lake Lake Lake Mt Ledyanaya 2562 m
Lake Lake Lake Koryak Range
Lake Lake Lake Anadyr
Lake Lake Lake Cape Navarin
Lake Lake Lake Gulf of Anadyr
Lake Lake Lake Chukchi Peninsula
Lake Lake Lake Providenya
Lake Lake Lake Uelen
Lake Lake Lake Point Hope
Lake Lake Lake Kotzebue Sound
Lake Lake Lake Nome
Lake Lake Lake Wrangel Island
Lake Lake Lake Zvezdnyy
Lake Lake Lake Mys Shmidta
Lake Lake Lake Egvekinot
Lake Lake Lake Enurmino
Lake Lake Lake Chukchi Range
Lake Lake Lake Cape Shelagski
Lake Lake Lake Ayon Island
Lake Lake Lake Pevek
Lake Lake Lake Arctic Circle
Lake Lake Lake Anadyr River
Lake Lake Lake Ambarchik
Lake Lake Lake Bilibino
Lake Lake Lake Mikhalkino
Lake Lake Lake Omolon River
Lake Lake Lake Kolyma River
Lake Lake Lake Kolyma Range
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Lake Lake Lake Mus-Khaya 2959 m
Lake Lake Lake Okhotsk
Lake Lake Lake Oktyabrskiy
Lake Lake Lake Cape Lopatka
Lake Lake Lake Cape Yelizavety
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Lake Lake Lake Yuzhno Sakhalinsk
Lake Lake Lake Cape Aniva
Lake Lake Lake Khabarovsk
Lake Lake Lake Birobidzhan
Lake Lake Lake Blagoveshchensk
Lake Lake Lake Svobodnyy
Lake Lake Lake Tynda
Lake Lake Lake Amur River
Lake Lake Lake Ussuri River
Lake Lake Lake Central Sikhote-Alin
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Lake Lake Lake Lena Pillars Nature Park
Lake Lake Lake Lena River
Lake Lake Lake Aldan River
Lake Lake Lake Yana River
Lake Lake Lake Indigirka River
Lake Lake Lake Kolyma River
Lake Lake Lake Omolon River
Lake Lake Lake Anadyr River
Lake Lake Lake Amur River
Lake Lake Lake Ussuri River
Lake Lake Lake Songhua River
Lake Lake Lake Liao River
Lake Lake Lake Taz River
Lake Lake Lake Yenisey River
Lake Lake Lake Ob River
Lake Lake Lake Irtysh River
Lake Lake Lake Lena River
Lake Lake Lake Vitim River
Lake Lake Lake Olekma River
Lake Lake Lake Aldan River
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Lake Lake Lake Lake Khanka
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Lake Lake Lake Lake Ulugh Muztag
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Lake Lake Lake Lake Stanovoy Range
Lake Lake Lake Lake Yablonovyy Range
Lake Lake Lake Lake Burpeyskiy Range
Lake Lake Lake Lake Greater Khingan

Africa: human features

GEOFACTS

Largest country:
Algeria 2 381 741 sq km
(D7)

Smallest country:
Seychelles 455 sq km
(J4)

Largest population:
Nigeria 86 987 503
(E5)

Smallest population:
Seychelles 97 026
(J4)

Highest population density:
Mauritius 652.53 people per sq km
(J2)

Lowest population density:
Namibia 2.67 people per sq km
(F2)

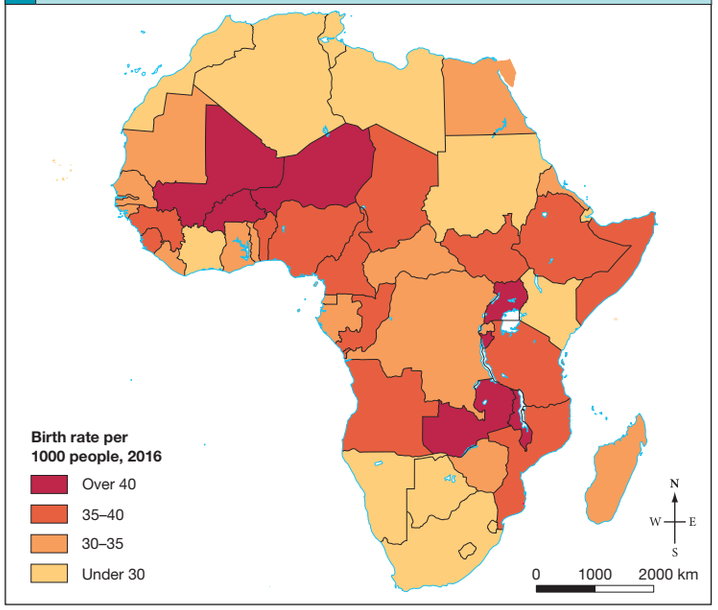
Richest country (GDP per capita):
Equatorial Guinea US$38 700
(E5)

Poorest country (GDP per capita):
Somalia US$400
(I5)

Himba woman, Namibia (F2)

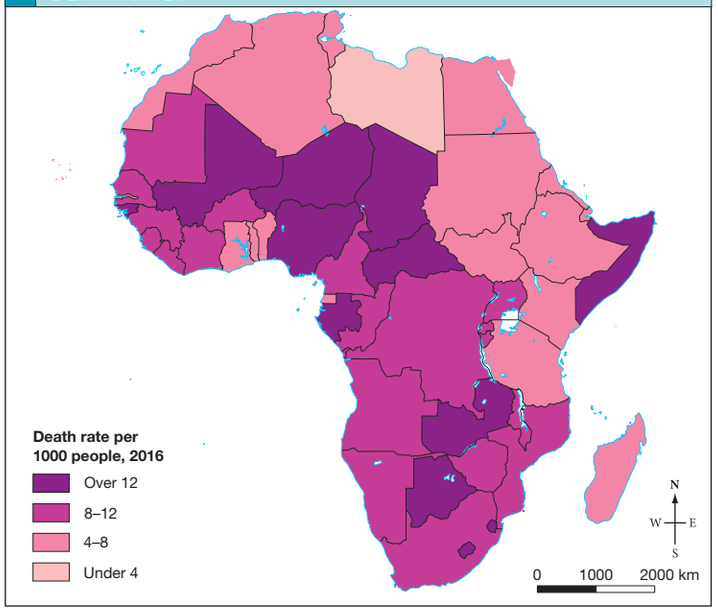


A BIRTH RATES



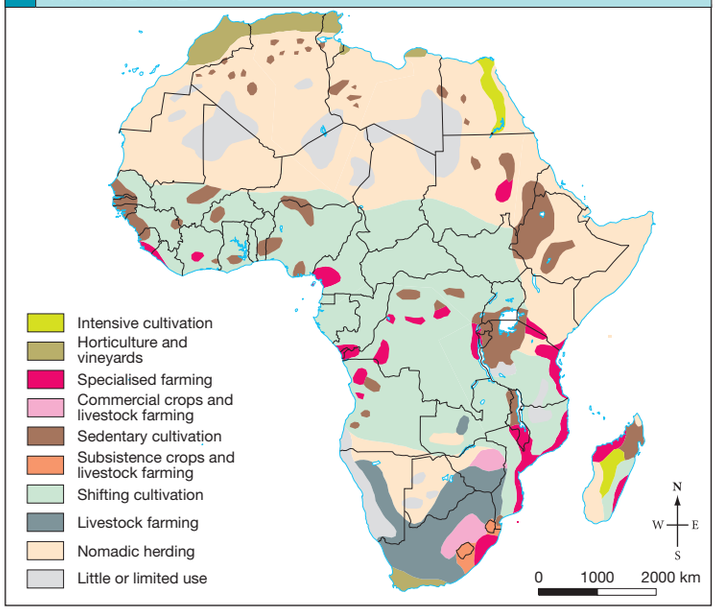
Source: Central Intelligence Agency

B DEATH RATES



Source: Central Intelligence Agency

C AGRICULTURE



Source: MAPgraphics





Source: Natural Earth Data www.naturalearthdata.com

Key

- Lake; Dry lake
- Reef
- NIGER — Country name
- Country border
- Disputed border
- Country capital
- Reunion (France) — Dependency
- Lagos — Over 5 000 000 people
- Ibadan — 1 000 000 to 5 000 000 people
- Kikwit — 500 000 to 1 000 000 people
- East London — 100 000 to 500 000 people
- Major road
- Major railway

Africa: natural features

GEOFACTS

Highest point:
Mount Kilimanjaro (Tanzania) 5895 m
(H4)

Lowest point:
Lake Assal (Djibouti) –156.1 m
(I5)

Longest river:
Nile River 6695 km
(H7)

Highest temperature:
Kebili (Tunisia) 55°C
(E8)

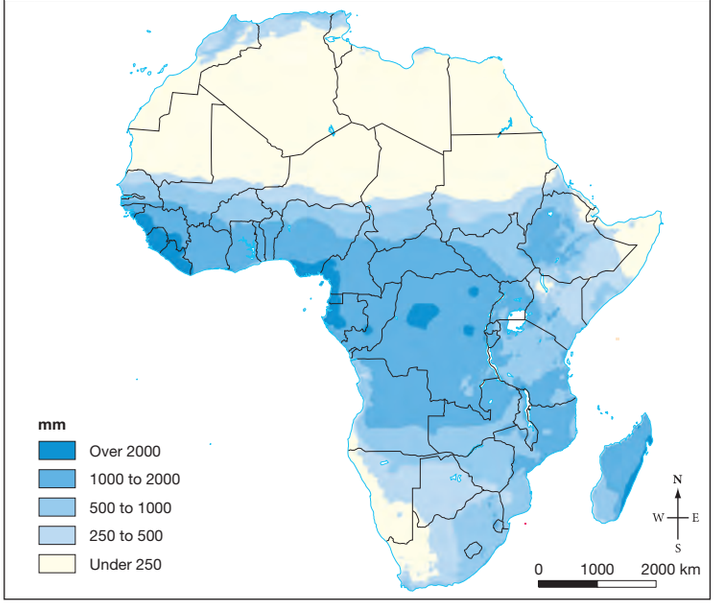
Lowest temperature:
Ifrane (Morocco) –24°C
(D8)

Highest annual rainfall:
Debundscha (Cameroon) 10 277 mm
(E5)

Lowest annual rainfall:
Wadi Halfa (Sudan) 2.5 mm
(H7)

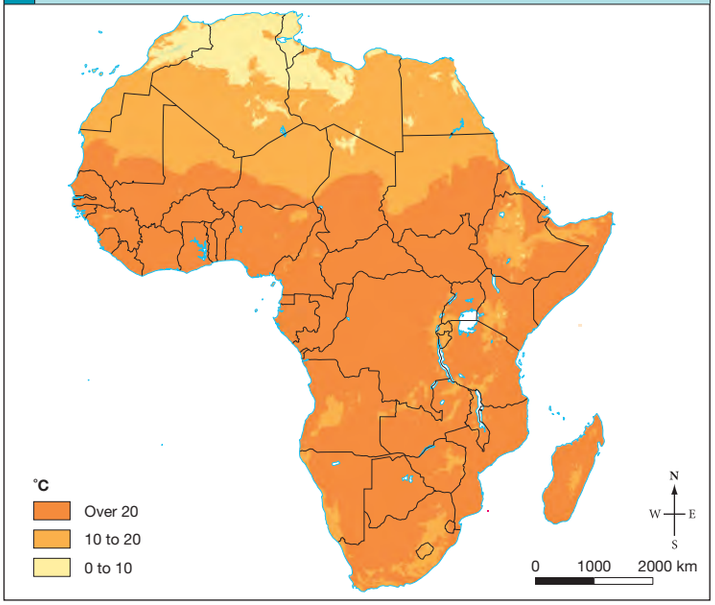


A ANNUAL RAINFALL



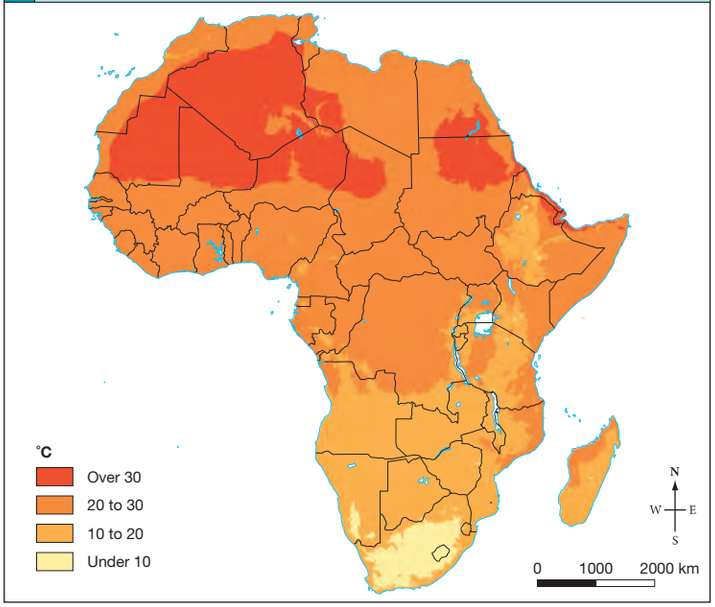
Source: WorldClim

B JANUARY TEMPERATURES

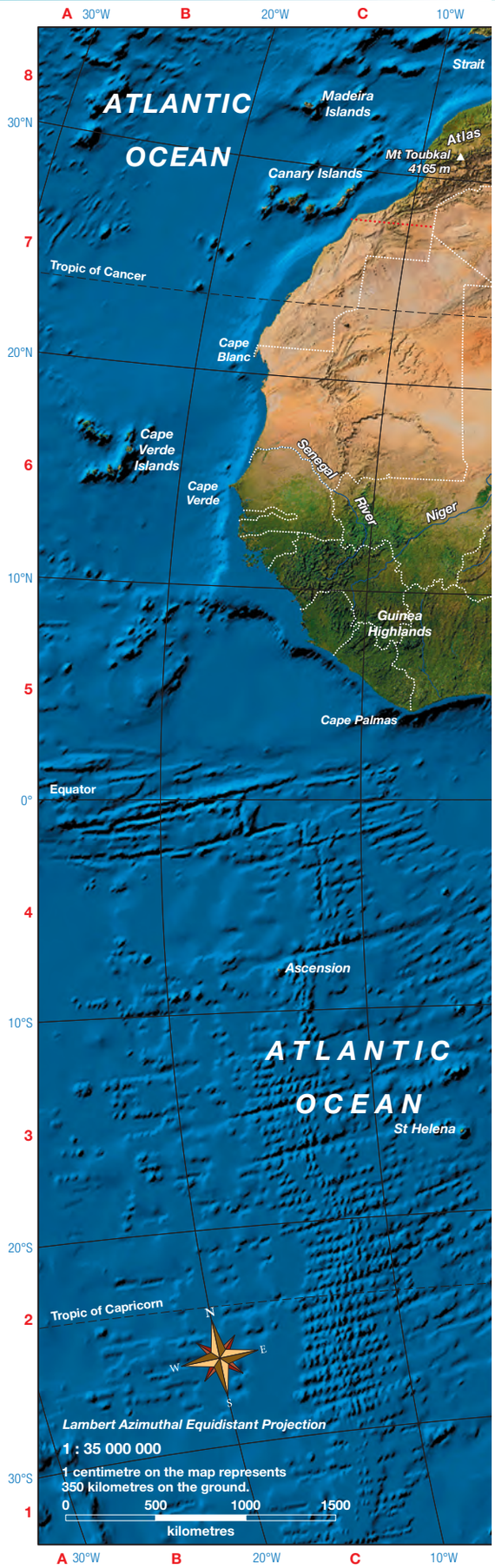


Source: WorldClim

C JULY TEMPERATURES



Source: WorldClim





Source: © WorldSat International, 2017

Key



Combating desertification

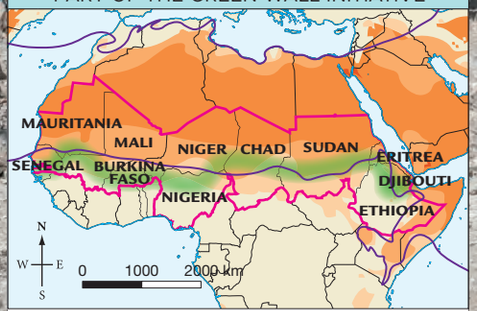
Desertification is an extreme form of land degradation. Poor land management through over-grazing, over-cultivation and deforestation, combined with extreme weather and climate change, result in land losing productivity **A**. Desertification threatens the livelihoods, wellbeing and food security of an estimated 500 million people living in sub-Saharan Africa.

The Great Green Wall for the Sahara and Sahel Initiative involves a mosaic of 'green' projects to improve soil quality, biodiversity and, ultimately, food production and quality of life. The focus is on the natural regeneration of native trees and shrubs **B**. Trees shelter and protect the soils and crops from wind and water erosion, the leaf litter adds nutrients and trees can provide fruits, nuts and other products that can be consumed or sold.

A *A desertified landscape in Tigray, Ethiopia* ▼



B REGIONS REQUIRING REVEGETATION AS PART OF THE GREEN WALL INITIATIVE



Key

The Great Green Wall Initiative

- Participating country
- Focus area for revegetation projects
- Annual precipitation 400 mm isohyet
- Country border
- Hyper arid — desert with very little rainfall
- Arid — semi desert with low and highly variable rainfall
- Semi arid — highly seasonal rainfall of 500–800 mm per year



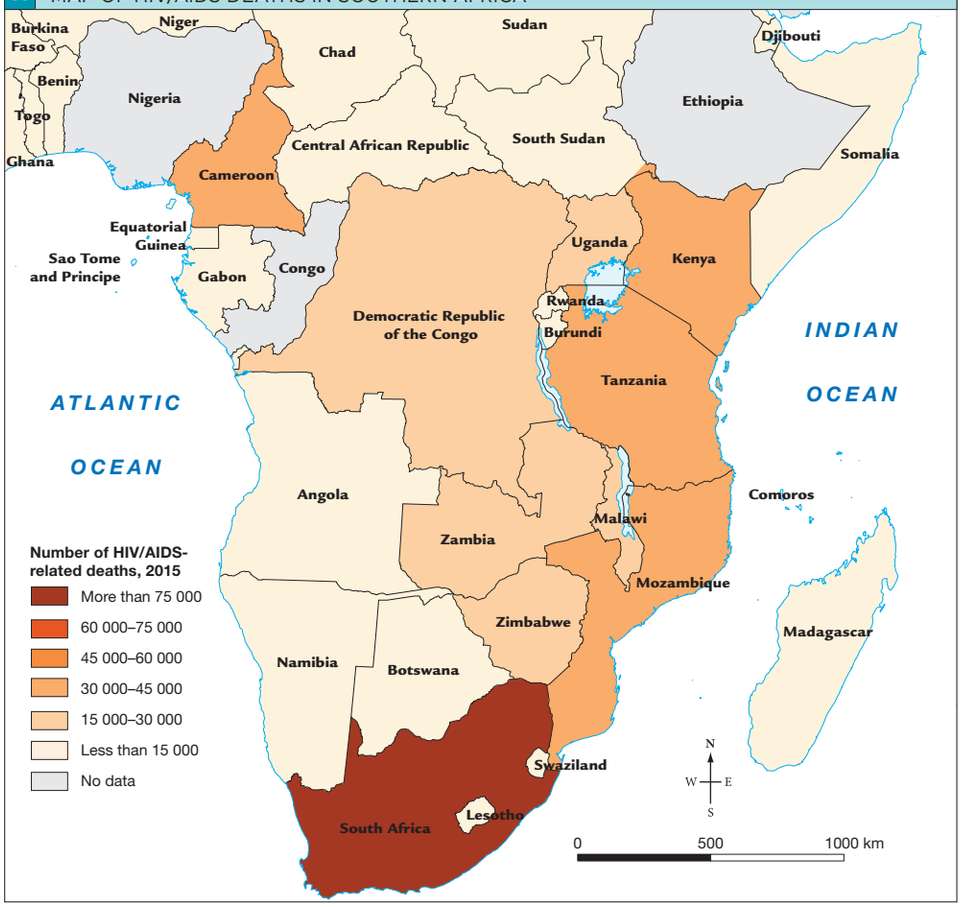
Source: Redrawn by Spatial Vision based on information taken from United Nations Convention to Combat / Food and Agriculture Organization of the United Nations / Kew Gardens Royal Botanic Gardens


10°E
E
20°E
F
30°E
G
40°E
H
50°E
I
5
30°N
4
20°N
3
10°N
2
1
0°
Equator
MEDITERRANEAN SEA
IONIAN SEA
SEA OF CRETE
RED SEA
INDIAN OCEAN
Arabian Gulf
Persian Gulf
Gulf of Aden
Gulf of Hammamet
Gulf of Gabes
Gulf of Sidra
Lake Chad
Lake Nasser
Lake Victoria
Lake Tanganyika
Lake Albert
Lake Edward
Lake Kivu
Lake Turkana
Lake Abaya
Lake Chamo
Lake Tana
Lake Assal
Lake Eyasi
Lake Mweru
Lake Mai-Ndombe
Nile Delta
Sahara Desert
Libyan Desert
Eastern Desert
Ubari Desert
Murzuq Desert
Rebiana Sand Sea
Sand Sea of Calanscio
Sirte Desert
Qattara Depression
Bodele Depression
Ennedi Plateau
Tibesti Mountains
Hejaz Mountains
Asir Mountains
Zagros Mountains
Kavir Desert
An Nafud Desert
Nubian Desert
Ethiopian Highlands
Great Rift Valley
Danakil Depression
Ogaden Desert
Marrah Mountains
Jabal Teljo 1954 m
Emi Koussi 3415 m
Mt Sinai 2285 m
Ras Dashan 4620 m
Mt Batu 4307 m
Mt Elgon 4321 m
Mt Kenya 5199 m
Kilimanjaro 3895 m
Simien NP
Mt Kenya NP
Kilimanjaro NP
Serengeti NP
Ruwenzori NP
Virunga NP
Bwindi Impenetrable NP
Kahuzi-Biega NP
Garamba NP
Lake Turkana NP
Salonga NP
Dja Faunal Reserve
Lobeke NP
Manovo-Gounda-St Floris NP
Zakouma NP
Ennedi Massif: Natural and Cultural Landscape
Lakes of Ounianga
Air and Tenere Natural Reserves
Lake Turkana and the Great Rift Valley
Kenya Lake System in the Great Rift Valley
Landscape of Lope-Okanda
Sangha Trinational
Dja River
Omo River
Shebelle River
Jubba River
Tana River
Euphrates
Tigris
Zagros
Karun
Cyprus is divided between the Northern Turkish Cypriots and the Southern Greek Cypriots.
Boundary claimed by Israel
Boundary disputed by Sudan
Boundary claimed by South Sudan
Boundary disputed by Eritrea
Wadi Rum Protected Area
Whale Valley
Farasan Islands
Socotra Archipelago
Cape Guardafui
Selous Game Reserve
Mafia Island
Pemba Island
Zanzibar Island
Adamawa Plateau
Shebshi Mtns
Mandara Mtns
Marah Mountains
Ennedi Massif
Nile
Blue Nile
White Nile
Atbara
Omo
Kotto
Bomu
Uele
Chari
Logone River
Ubangi
Kasai
Congo
Tshuapa
Lualaba
Luapula
Kafue
Zambezi
Okavango
Cuvelai
Kunene
Orange
Limpopo
Shatt al Arab
Euphrates
Tigris
Karun
Kavir Desert
Dasht-e Lut
Rub al Khali
Nafud Desert
Hejaz Mountains
Asir Mountains
Zagros Mountains
Elburz Mountains
Kopet Dag
Caspian Sea
Aral Sea
Lake Urmia
Lake Van
Lake Sevan
Lake Issyk-Kul
Lake Balkhash
Lake Baikal
Lake Hovsgol
Lake Khanka
Lake Hanka
Lake Biwa
Lake Kasumigaura
Lake Inawashiro
Lake Towada
Lake Shikotsu
Lake Toya
Lake Kussharo
Lake Mashu
Lake Akan
Lake Onuma
Lake Hamana
Lake Suwa
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Lake Yamanaka
Lake Motosu
Lake Shoji
Lake Sagami
Lake Inba
Lake Kasumigaura
Lake Biwa

Wellbeing

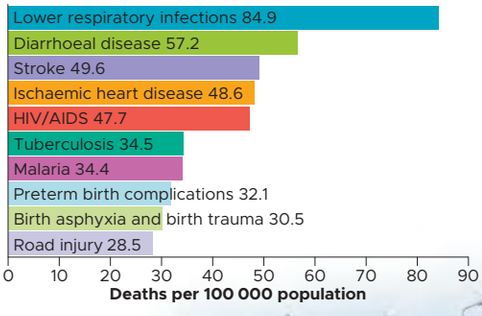
Reports indicate that all health conditions are worse in Africa than in any other part of the world and that a strong correlation exists between chronic health conditions and income **B** **C**. This is particularly evident within southern Africa (where average GDP per capita is often well under US$5000), where 4 in 10 people are more likely to succumb to preventable illnesses such as tuberculosis, malaria, cholera and HIV/AIDS than to diseases that are difficult to treat. This leads to a reduction in earned income, which impacts the welfare and economic growth of the region. This is particularly evident with HIV/AIDS **A** as it affects able-bodied men and women, preventing them from supporting the struggling economy. To reduce this, governments and aid agencies are campaigning for HIV/AIDS testing **D** **E**.

A MAP OF HIV/AIDS DEATHS IN SOUTHERN AFRICA

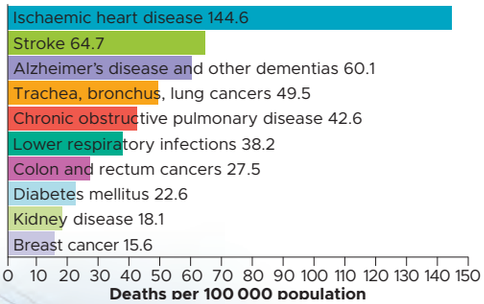


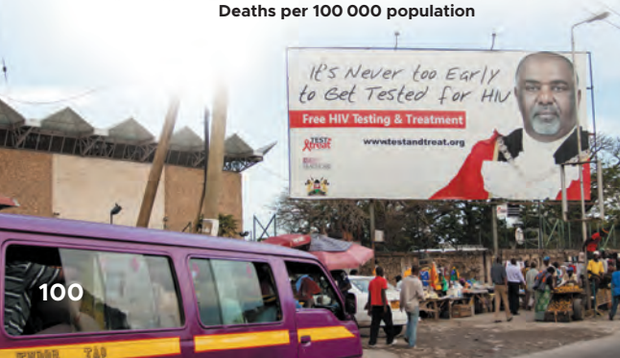
Source: AIDS Info

B *Top 10 causes of death in low-income economies, 2015* ▼



C *Top 10 causes of death in high-income economies, 2015* ▼





D *Billboard to promote HIV/AIDS testing, Kenya* ◀

E *Women lining up for HIV/AIDS testing* ▶



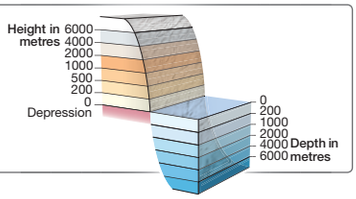




Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Key

- Lake
- River
- Wetland
- Mt Kenya 5199 m ▲ Mountain
- GABON — Country name
- Country border
- Disputed border
- Country capital
- Mayotte (France) — Dependency
- Lagos ■ Over 5 000 000 people
- Benoni ● 1 000 000 to 5 000 000 people
- Moshi ● 500 000 to 1 000 000 people
- Iringa ● 100 000 to 500 000 people
- Tombua ● Under 100 000 people
- Major road
- Major railway
- World Heritage Area



North America: human features

GEOFACTS

Largest country:
Canada 9 984 670 sq km
(I7)

Smallest country:
St Kitts and Nevis
261 sq km
(M3)

Largest population:
United States of America 324 118 787
(I5)

Smallest population:
St Kitts and Nevis
56 183
(M3)

Highest population density:
Barbados 673.67 people per sq km
(M2)

Lowest population density:
Greenland 0.03 people per sq km
(O9)

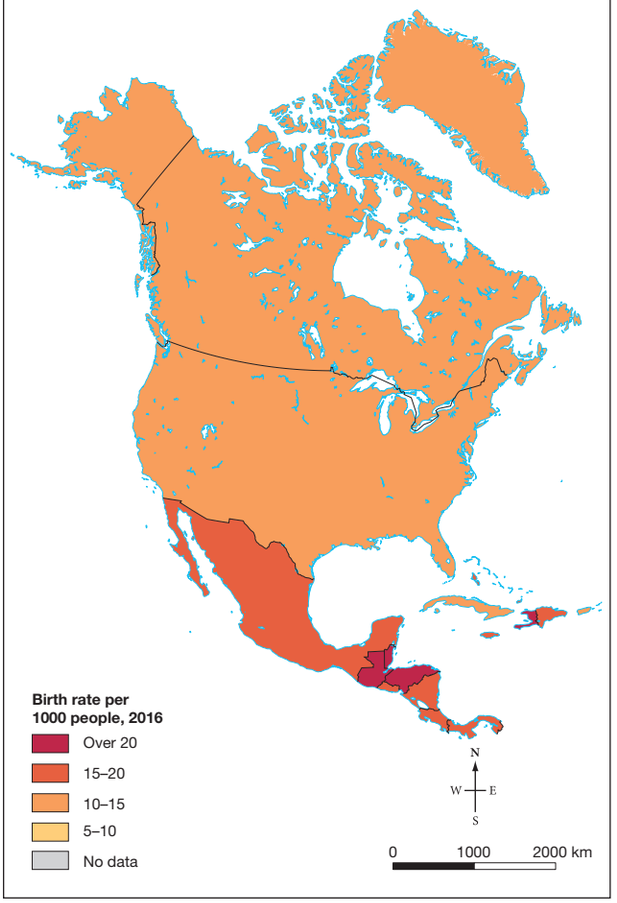
Richest country (GDP per capita):
Canada US$57 300
(I7)

Poorest country (GDP per capita):
Haiti US$1800
(L3)



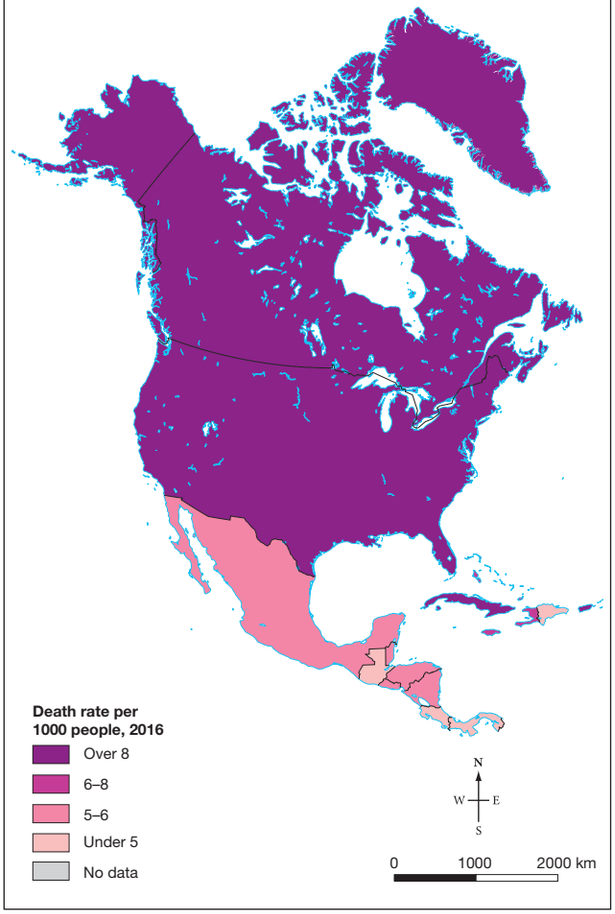
Inukshuk (traditonal Inuit monument) in Whistler, Canada

A BIRTH RATES



Source: Central Intelligence Agency

B DEATH RATES

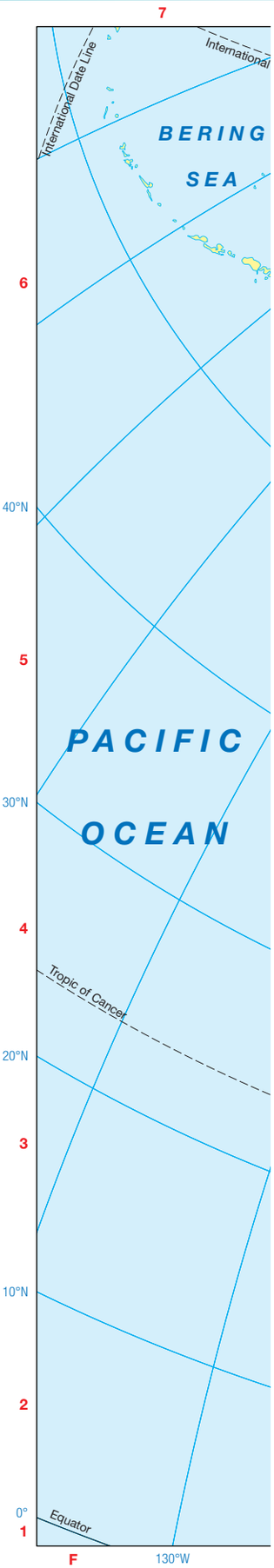


Source: Central Intelligence Agency

C AGRICULTURE



Source: MAPgraphics





Source: Natural Earth Data www.naturalearthdata.com

Key

Lake	MEXICO Country name	New York Over 5 000 000 people	Major road
River	Country border	Montreal 1 000 000 to 5 000 000 people	Major railway
Reef	Country capital	Richmond 500 000 to 1 000 000 people	
	Puerto Rico (USA) Dependency	Jackson 100 000 to 500 000 people	

North America: natural features

GEOFACTS

Highest point:
Mount McKinley (USA) 6194 m
(E8)

Lowest point:
Death Valley (USA)
–85.9 metres
(H5)

Longest river:
Mississippi–Missouri River
(USA) 6019 km
(J5)

Death Valley in the USA, where North America's highest temperature was recorded
(H5)

Highest temperature:
Death Valley (USA) 56.7°C*
(H5)

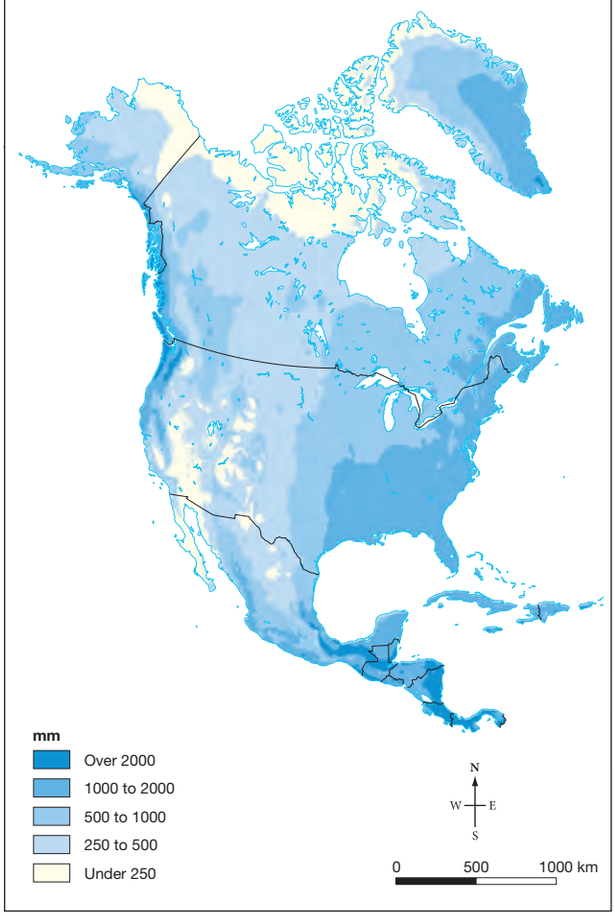
Lowest temperature:
Snag (Canada) –63°C
(E8)

Highest annual rainfall:
Henderson Lake (Canada)
6655 mm
(G6)

Lowest annual rainfall:
Bateques (Mexico)* 30.5 mm
(H5)

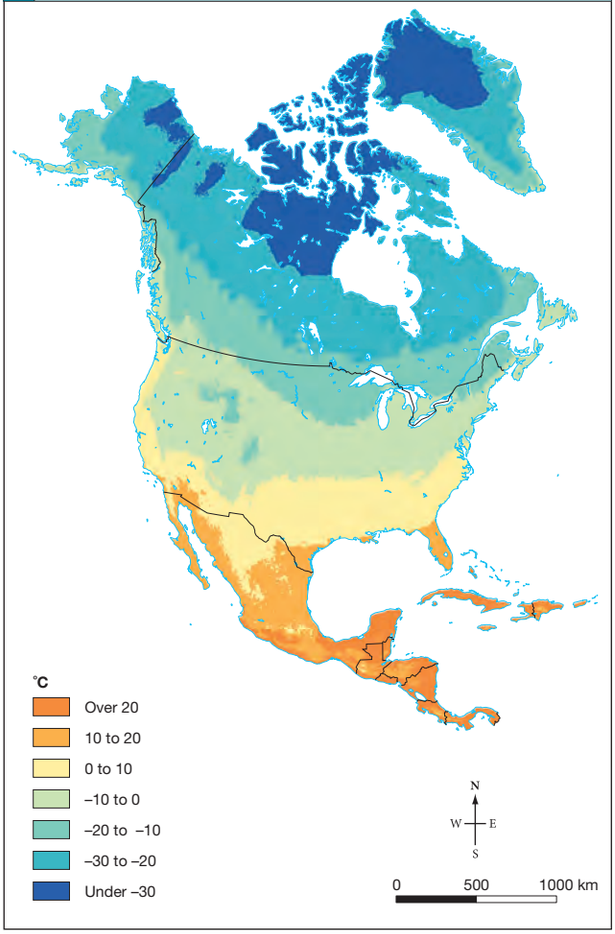
*Also the world's highest temperature

A ANNUAL RAINFALL



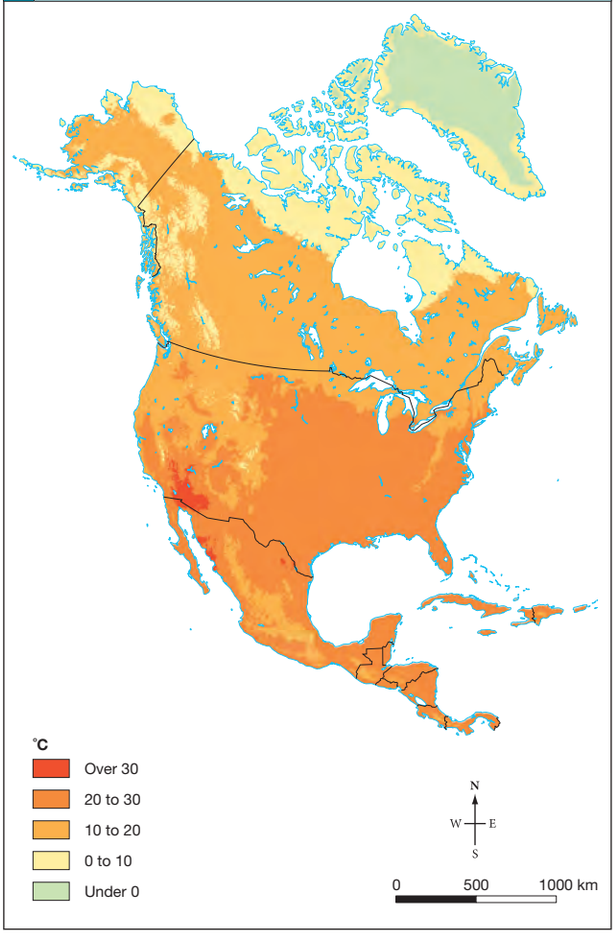
Source: WorldClim

B JANUARY TEMPERATURES

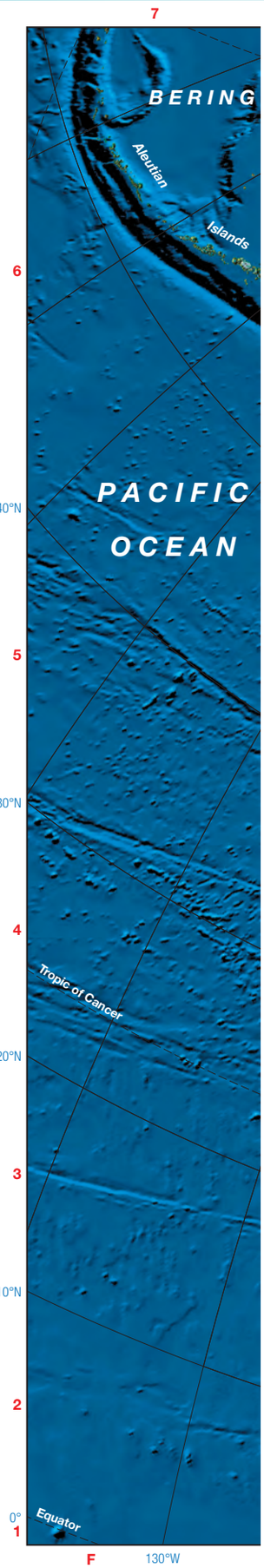


Source: WorldClim

C JULY TEMPERATURES



Source: WorldClim





Source: © WorldSat International, 2017

Key


Delta and river


Desert


Forest


Lake


Mountains


Islands


Seamounts


Country borders

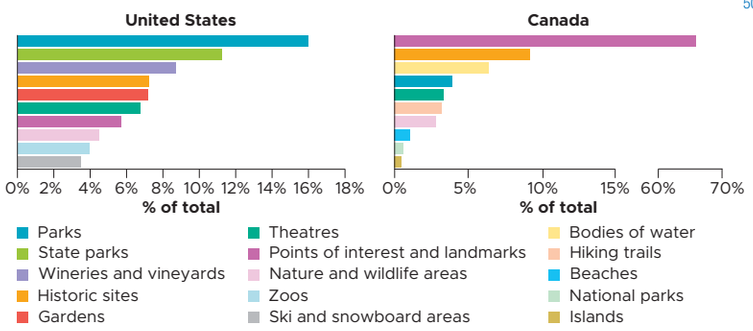
Tourism

Tourism is one of the world's fastest growing industries. In 2014, the United States was the second most popular destination in the world, with over 77 million international tourist arrivals. The travel and tourism industry is one of the largest industries in the United States, making a total contribution of US$1.47 trillion to their Gross Domestic Product in 2014. Of those visitors, travellers from Canada contributed the most to international travel, spending US$26 billion.

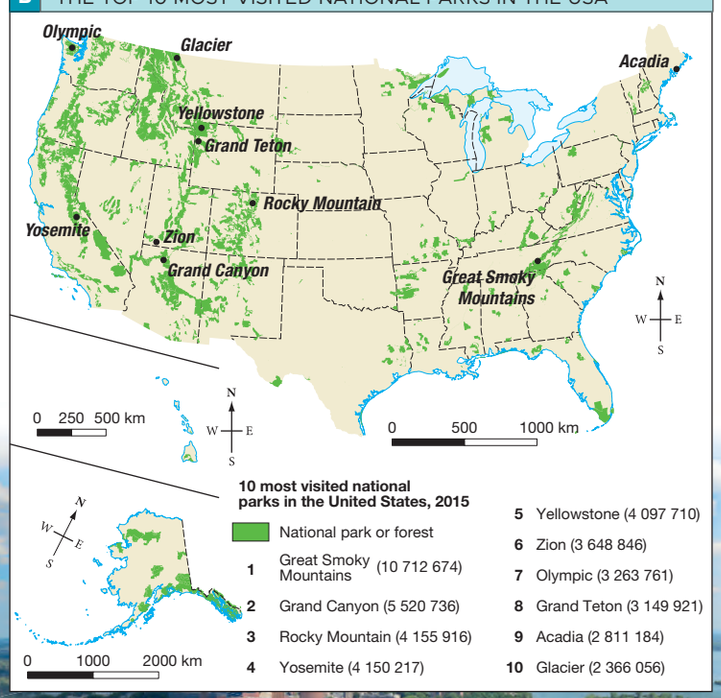
Canada receives far fewer tourists than the US, with only 18 million tourist arrivals in 2015. Nevertheless, tourism generated $88.5 billion in economic activity for Canada in 2013. In 2015, nearly 70 per cent of all tourists to Canada came from the United States. One tourist attraction shared by both nations is Niagara Falls **C**, which straddles the international border between Canada and the United States. The Falls are visited by around 30 million people every year.

One way of judging the most popular tourist sites is by using Instagram, a mobile photo-sharing application **A**. Parks are one of the most popular tourist locations visited in the USA **B**.

A *Popular Instagram locations in the United States and Canada* ▼



B THE TOP 10 MOST VISITED NATIONAL PARKS IN THE USA



Source: US National Parks Service

C *Niagara Falls* ▶



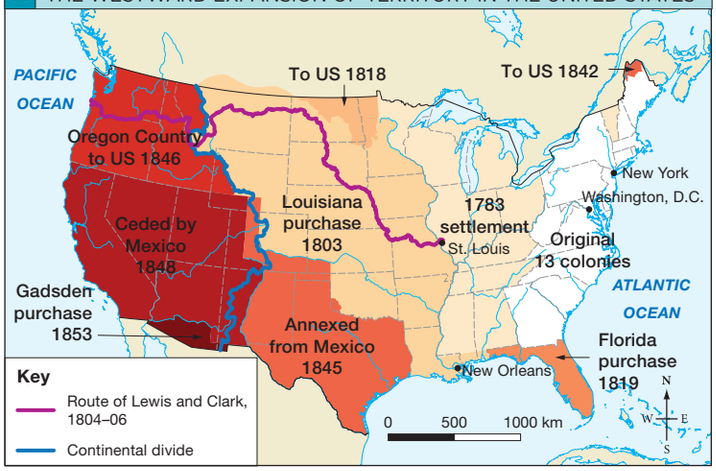

ARCTIC OCEAN
GREENLAND
Kalaallit Nunaat
(Denmark)
CANADA
UNITED STATES OF AMERICA
ATLANTIC OCEAN
GREENLAND SEA
NORWEGIAN SEA
ICELAND
Baffin Bay
Hudson Bay
Foxe Basin
Parry Islands
Queen Elizabeth Islands
Nunavut
Barren Grounds
LABRADOR SEA
Ungava Peninsula
Melville Peninsula
Cumberland Peninsula
Meta Incognita Peninsula
Boothia Peninsula
Brodeur Peninsula
Resolution Island
Belcher Islands
Southampton Island
Coats Island
Mansel Island
Devon Island
Ellesmere Island
Baffin Island
Victoria Island
Banks Island
Prince Patrick Island
Melville Island
Cornwallis Island
Bathurst Island
Somerset Island
Prince of Wales Island
King William Island
Axel Heiberg Island
Knud Rasmussen Land
King Frederik VIII Land
King Wilhelm Land
Jameson Land
King Christian IX Land
Nyeboe Land
Kane Basin
Lincoln Sea
Nares Strait
Davis Strait
Denmark Strait
Hudson Strait
Foxe Pen.
Frobisher Bay
Cumberland Sound
Qeqertarsuaq Tunua
Kangerlussuaq
Melville Bay
Cape York
Cape Prince Alfred
M'Clure Strait
Viscount Melville Sound
Amundsen Gulf
Coppermine River
Gulf of Boothia
Lac La Martre
Great Slave Lake
Yellowknife
Fort Resolution
Hay River
Wood Buffalo NP
Slave River
Lake Clare
Peace River
Athabasca River
Lake Athabasca
Cree Lake
Wollaston Lake
Black Lake
Fort McMurray
Dubawnt Lake
Thelon River
Kasba Lake
Yathkyed Lake
Baker Lake
Chesterfield Inlet
Rankin Inlet
Arviat
Ennadai
Uranium City
Churchill River
Reindeer Lake
Southern Indian Lake
Lynn Lake
Churchill
Cape Churchill
Hudson Bay
Manitoba
Nelson River
Gillam
Thompson
Split Lake
Shamattawa
Fort Severn
Lake la Ronge
Saskatchewan
Prince Albert
Meadow Lake
Flin Flon
The Pas
Norway House
God's Lake
Lake Winnipegosis
Lake Winnipeg
Saskatoon
North Battleford
Big Beaver House
Berens River
Lansdowne House
Attawapiskat
Winisk River
Severn River
Big Trout Lake
Lake Seul
Albany River
Lake of the Woods
Sioux Lookout
Kenora
Dryden
Winnipeg
Brandon
Regina
Moose Jaw
Swift Current
Medicine Hat
Yorkton
Dauphin Lake
Lake Manitoba
Weyburn
Havre
Glasgow
Williston
Minot
Fort Peck Lake
Missouri River
Billings
Miles City
Bismarck
North Dakota
Fargo
Minnesota
Duluth
Grand Forks
International Falls
Thunder Bay
Atikokan
Lake Nipigon
Nipigon
Marathon
Geraldton
Hearst
Kapuskasing
Cochrane
Timmins
La Sarre
Lake Abitibi
Rouyn-Noranda
Lake Superior
Upper Red Lake
Lower Red Lake
Red River
James River
Big Horn River
Mobridge
Aberdeen
St Cloud
Minneapolis
St Paul
Wausau
Green Bay
Lake Michigan
Wisconsin
Michigan
Milwaukee
Madison
Janesville
Waukegan
Chicago
Illinois
Indiana
Rockford
Aurora
Cedar Rapids
Des Moines
Iowa
Omaha
Nebraska
North Platte
Sioux City
Sioux Falls
South Dakota
Rapid City
Pierre
Wyoming
Gillette
Casper
Cheyenne
Scottsbluff
Longs Peak
4346 m
Boulder
Douglas
Rawlins
Lake Oahe
Wilmar
Muskegon
Flint
Grand Rapids
Lansing
Detroit
Pontiac
Kitchener
Hamilton
Toronto
Barrie
Peterborough
Lake Huron
Sarnia
Lake Erie
Erie
Buffalo
Cleveland
Pittsburgh
Ohio
Harrisburg
Scranton
Newark
New York
Trenton
Philadelphia
New Jersey
Pennsylvania
Rochester
Syracuse
Albany
New Haven
Hartford
Providence
Boston
Lowell
Worcester
Manchester
Vermont
New Hampshire
Rhode Island
Connecticut
Long Island
Niagara Falls
Lake Ontario
Lake Michigan
Lake Superior
Lake Huron
Lake Erie
Ottawa
Pembroke
North Bay
Sudbury
Sault Ste Marie
Cochrane
Timmins
Kapuskasing
Hearst
Geraldton
Thunder Bay
Atikokan
Kenora
Dryden
Sioux Lookout
Lake of the Woods
Lake Nipigon
Lake Superior
Lake Abitibi
Lake Timiskaming
Lake Temiscamingue
Lake Nipissing
Lake Simcoe
Lake Ontario
Lake Erie
Lake Champlain
Lake George
Lake Winnipeg
Lake Manitoba
Lake Winnipegosis
Lake Athabasca
Great Slave Lake
Great Bear Lake
Great Slave Lake
Lake Athabasca
Lake Winnipeg
Lake Manitoba
Lake Winnipegosis
Lake Nipigon
Lake Abitibi
Lake Timiskaming
Lake Temiscamingue
Lake Nipissing
Lake Simcoe
Lake Champlain
Lake George
Lake Bienville
Lake Mistassini
Lake Sakami
Lake Evans
Lake Guillaume-Delisle
Lake Minto
Lake Nettilling
Lake Amadjuak
Lake Ivujivik
Lake Salluit
Lake Kangirsuk
Lake Kuujjuaq
Lake Kuujjuarapik
Lake Radisson
Lake Eastmain
Lake Mistassini
Lake Matagami
Lake Lac St-Jean
Lake Saint-Jean
Lake Témiscamingue
Lake Nipissing
Lake Simcoe
Lake Champlain
Lake George
Lake Winnipeg
Lake Manitoba
Lake Winnipegosis
Lake Athabasca
Great Slave Lake
Great Bear

United States of America

Settlement patterns

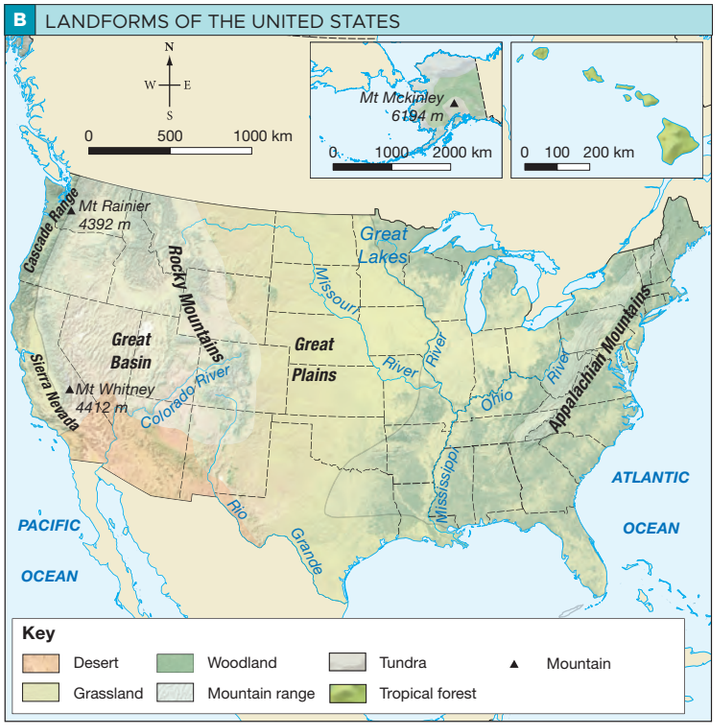
Before the colonisation of the United States of America, native peoples lived in North America for thousands of years. By 1770, more than 2 million people lived and worked in the original 13 British colonies **A**. At first the natural barrier of the Appalachian Mountains limited the westward expansion of settlement beyond these colonies **B**. Once the colonies won independence from Britain, people started to cross the mountains into the fertile lands between the Appalachians and the Mississippi River. After the Great Plains had been settled, the opening of the various trails in the 1820s and 1830s enabled significant numbers of American settlers to move further south and west. The movement to the west was made easier by the routes developed by explorers, such as Lewis and Clarke. These routes included the important south pass through the central Rocky Mountains, which later became a major route for settlers to reach the west coast. The California Gold Rush that commenced in 1849 was another major factor in the western expansion to the Pacific Coast. This westward expansion of settlement developed in stages between 1783 and 1853.

A THE WESTWARD EXPANSION OF TERRITORY IN THE UNITED STATES



Source: Atlas of Historical County Boundaries

B LANDFORMS OF THE UNITED STATES



Source: Natural Earth Data www.naturalearthdata.com





Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Interconnections

The increasing interconnection between countries around the world has enabled many products to be moved across the world far from where they have been grown, extracted or processed. Ships are the most efficient form of moving large quantities of goods because of their large carrying capacity and they are responsible for more than 90 per cent of global trade.

The Panama Canal is one of the world's key waterways and connects the Atlantic Ocean to the Pacific Ocean via the Caribbean Sea. Originally opened in 1913, the canal was expanded in 2016 to facilitate larger container ships **A**.

Nearby ports in North and South America then upgraded their port and cargo facilities to deal with larger ships.



The majority of recent canal traffic comprises container ships carrying goods manufactured in Asia and sent to the United States. There is now potential for further trade in bulk cargo such as grains and cement, and petroleum products and liquefied natural gas (LNG) to be exported from the United States to Asia.



A *Tug boat at work inside the lock at Panama Canal holding a container ship* ▲

D
80°W
E
70°W
F
60°W
G
4
30°N
3
20°N
2
10°N
1
ATLANTIC OCEAN
CARIBBEAN SEA
Greater Antilles
Lesser Antilles
Straits of Florida
Tropic of Cancer
Cayman Trench
Windward Passage
Mona Passage
Puerto Rico Trench
Panama Canal
Gulf of Mosquitos
Gulf of Darien
Gulf of Panama
Gulf of Venezuela
Gulf of Chiriquí
Lake Maracaibo
Lake Valencia
Lake Managua
Lake Nicaragua
Mosquito Coast
Andes
Merida Mountains
Cordillera
Guiana Highlands
Orinoco River Delta
Bahamas
Florida
Georgia
South Carolina
North Carolina
Cape Fear
Cape Canaveral
Cape San Blas
Everglades NP
Cape Sable
Grand Bahama
Great Abaco
Eleuthera
New Providence
Cat Island
San Salvador
Rum Cay
Andros
Great Exuma
Long Island
Crooked Island
Acklins Island
Mayaguana
Turks and Caicos Islands (UK)
Little Inagua
Great Inagua
Alejandro de Humboldt NP
Isle of Youth
Cuba
Havana
Matanzas
Varadero
Cienfuegos
Santa Clara
Ciego de Avila
Camaguey
Las Tunas
Holguin
Bayamo
Guantanamo
US Naval Base Guantanamo Bay
Santiago de Cuba
Cape Cruz
Desembarco del Granma NP
Sancti Spiritus
Nueva Gerona
Pinar del Rio
Bay of Pigs
Little Cayman
Grand Cayman
George Town
Cayman Islands (UK)
Jamaica
Montego Bay
Kingston
Spanish Town
May Pen
Blue and John Crow Mountains
Haiti
Port-au-Prince
Dominican Republic
Santo Domingo
Santiago
Duarte Peak 3087 m
San Pedro de Macoris
La Romana
Barahona
Les Cayes
Cap-Haitien
Gonaives
Monte Cristi
San Francisco de Macoris
La Vega
Hispaniola
Puerto Rico (USA)
San Juan
Arecibo
Ponce
Mayaguez
Virgin Islands (USA)
Virgin Islands (UK)
Anguilla (UK)
St Martin (Fra.)
St Barthelemy (Fra.)
Christiansted
St Croix
Sint Maarten (Neth.)
Nevis
Montserrat (UK)
Basseterre
Barbuda
Saint John's
Antigua
Antigua and Barbuda
St Kitts and Nevis
Guadeloupe (Fra.)
Pointe-a-Pitre
Basse-terre
Dominica
Roseau
Fort-de-France
Martinique (Fra.)
Castries
St Lucia
Pitons Management Area
Saint Vincent and the Grenadines
Kingstown
Bridgetown
Barbados
Saint George's
Grenada
Tobago
Trinidad and Tobago
Port-of-Spain
Trinidad
Orchilla
Blanquilla
Margarita
Los Roques
Aruba (Neth.)
Oranjestad
Bonaire (Neth.)
Curaçao (Neth.)
Willemstad
Punto Fijo
Coro
Riohacha
Point Gallinas
Guajira Peninsula
Santa Marta
Cristobal Colon 5797 m
Valledupar
Barranquilla
Soledad
Cartagena
Maracaibo
Santa Rita
Cabimas
Carora
Trujillo
Puerto Cabello
Valencia
Barquisimeto
Caracas
Barcelona
Puerto la Cruz
Cumana
Maturin
Tucupita
Zaraza
El Tigre
Ciudad Guayana
Ciudad Bolivar
Calabozo
San Fernando de Apure
Barinas
Merida
Bolivar Peak 4980 m
Sincelejo
El Banco
Monteria
Ocana
Cucuta
San Cristobal
Araure
Bucaramanga
Barrancabermeja
Puerto Berrio
Medellin
Quibdo
Sogamoso
Tunja
Puerto Carreno
Puerto Ayacucho
Puerto Cabello
Venezuela
Colombia
Guyana
Mt Roraima 2772 m
Canaima NP
Angel Falls
Pakaraima Mts
Brazil
Honduras
Rio Platano Biosphere Reserve
Caratasca Lagoon
Cape Gracias a Dios
Juticalpa
Puerto Cabezas
Nicaragua
Matagalpa
Managua
Bluefields
Granada
San Juan del Sur
San Juan del Norte
Providencia (Colombia)
San Andres
Costa Rica
Guanacaste Conservation Area
Puntarenas
Quesada
Puerto Limon
Talamanca Range–La Amistad Reserves
San Jose
Almirante
Colon
Nicoya Peninsula
Chirripo Grande 3820 m
Baru 3475 m
Panama
Panama City
Balboa
Pedregal
Puerto Armuelles
Chitre
Las Tablas
Santiago
Coiba NP
Coiba Island
Point Mariato
Darien NP
La Palma
Turbo
Los Katios NP
Cauca
Apure
Meta
Orinoco
Caroni
River
Anchorage
Jacksonville
Miami
Fort Lauderdale
West Palm Beach
Tampa
Orlando
St Petersburg
Sarasota
Fort Myers
Naples
Cape Coral
Coral Springs
Key West
Homestead
Daytona Beach
St Augustine
Gainesville
Tallahassee
Panama City
Apalachicola
Pensacola
Mobile
New Orleans
Houston
Dallas
Atlanta
Charleston
Savannah
Myrtle Beach
Columbia
Florence
Wilmington
Augusta
Macon
Columbus
Albany
Valdosta
Brunswick
Waycross
Douglas
Dublin
Beaufort
Sumter
Orangeburg
Aiken
Anderson
Athens
Marietta
La Grange
Auburn
Enterprise
Dothan
Lake City
Palatka
Ocala
Leesburg
Sanford
Titusville
Cape Canaveral
Melbourne
Vero Beach
Fort Pierce
Okeechobee
Lake
Winter Haven
Kissimmee
Spring Hill
Freeport
Palm Coast
Florida
Georgia
South Carolina
North Carolina
Alabama
Mississippi
Louisiana
Texas
Oconee River
Ocmulgee River
Flint River
Chattahoochee River
Suwannee River
Withlacoochee River
Withlacoochee River
Alligator Alley
Everglades
Big Cypress Swamp
Okefenokee Swamp
Okefenokee
Lake Okeechobee
Lake Okeechobee
Lake Okeechob

South America: human features

GEOFACTS

Largest country:
Brazil 8 511 960 sq km
(F6)

Smallest country:
Suriname 163 820 sq km
(F7)

Largest population:
Brazil 209 567 920
(F6)

Smallest population:
Suriname 547 610
(F7)

Highest population density:
Ecuador 55.21 people per sq km
(C6)

Lowest population density:
Suriname 3.5 people per sq km
(F7)

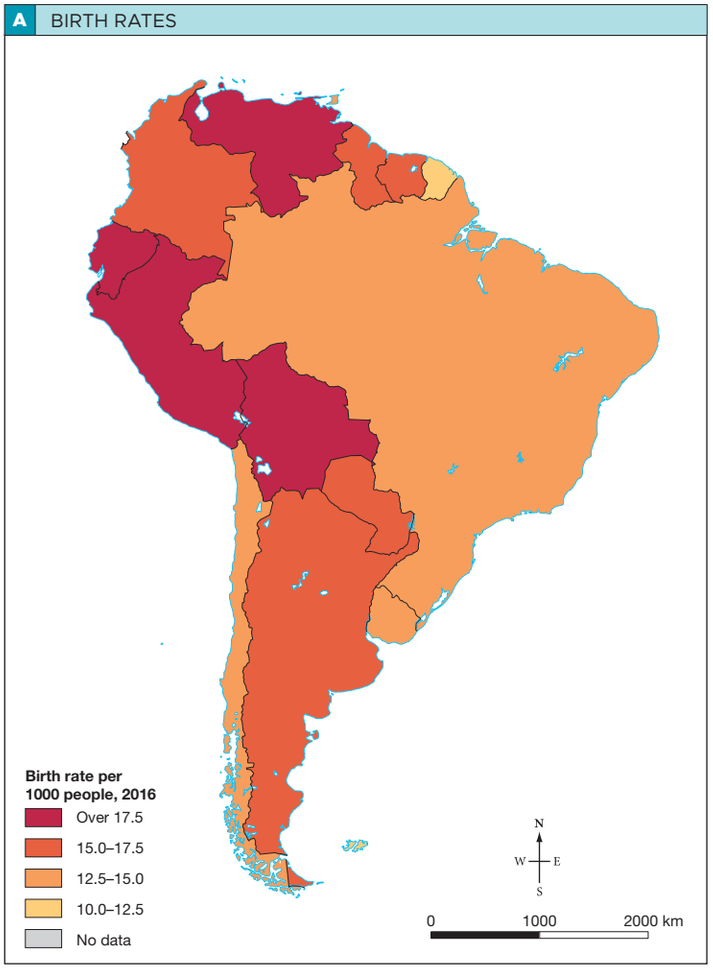
Richest country (GDP per capita):
Brazil (F6) and Suriname (F7) both US$15 200

Poorest country (GDP per capita):
Bolivia US$7200
(E5)



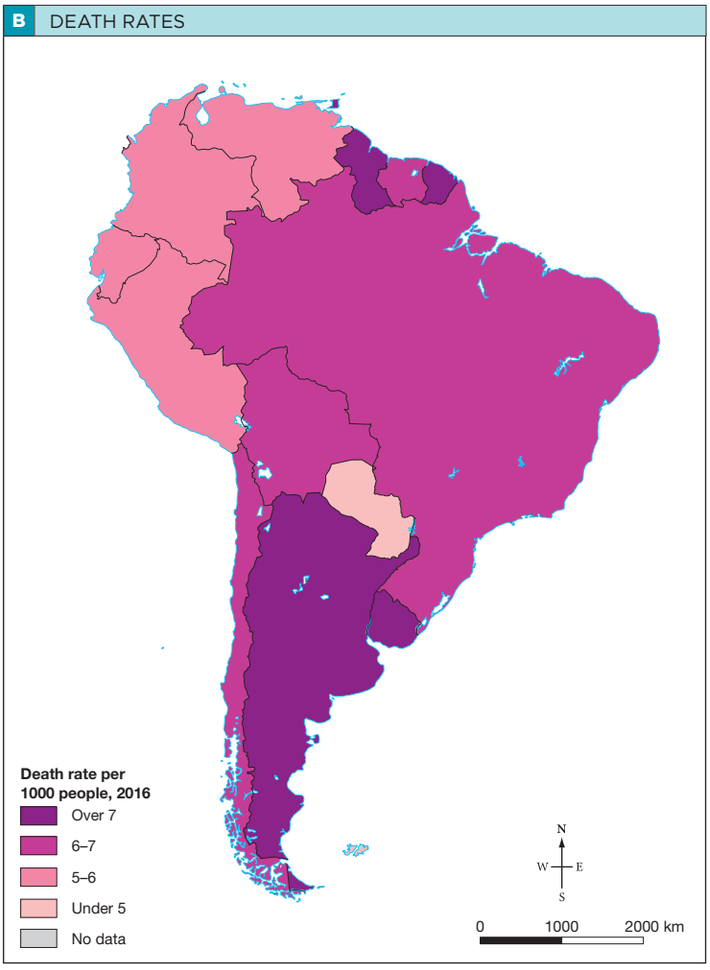
Brazilian woman of African descent wearing traditional clothes from the state of Bahia, Brazil

A BIRTH RATES



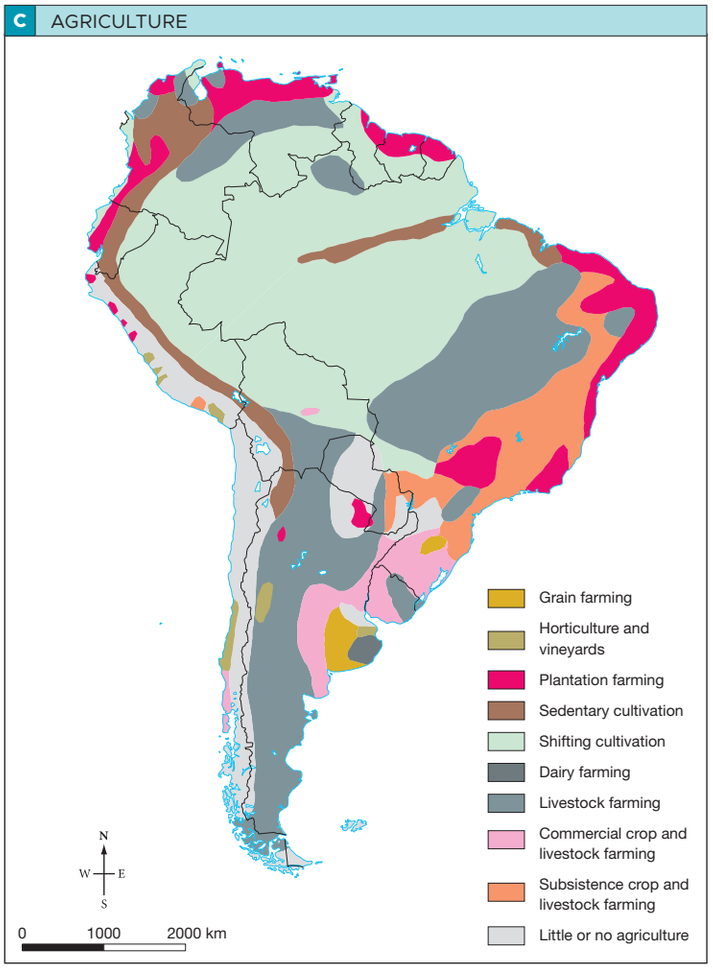
Source: Central Intelligence Agency

B DEATH RATES



Source: Central Intelligence Agency

C AGRICULTURE



Source: MAPgraphics



Source: Natural Earth Data www.naturalearthdata.com

Key

- Lake
- River
- **PERU** Country name
- Country border
- Country capital
- **South Georgia (UK)** Dependency
- **Sao Paulo** Over 5 000 000 people
- **Recife** 1 000 000 to 5 000 000 people
- Londrina 500 000 to 1 000 000 people
- Cusco 100 000 to 500 000 people
- Cayenne Under 100 000 people
- Major road
- Major railway

South America: natural features

GEOFACTS

Highest point:
Mount Aconcagua (Argentina)
6960 m
(D3)

Lowest point:
Laguna del Carbon (Argentina)
–105 m
(E2)

Longest river:
Amazon River 6437 km
(F6)

Highest temperature:
Rivadavia (Argentina) 49°C
(E4)

Lowest temperature:
Sarmiento (Argentina) –33°C
(E2)

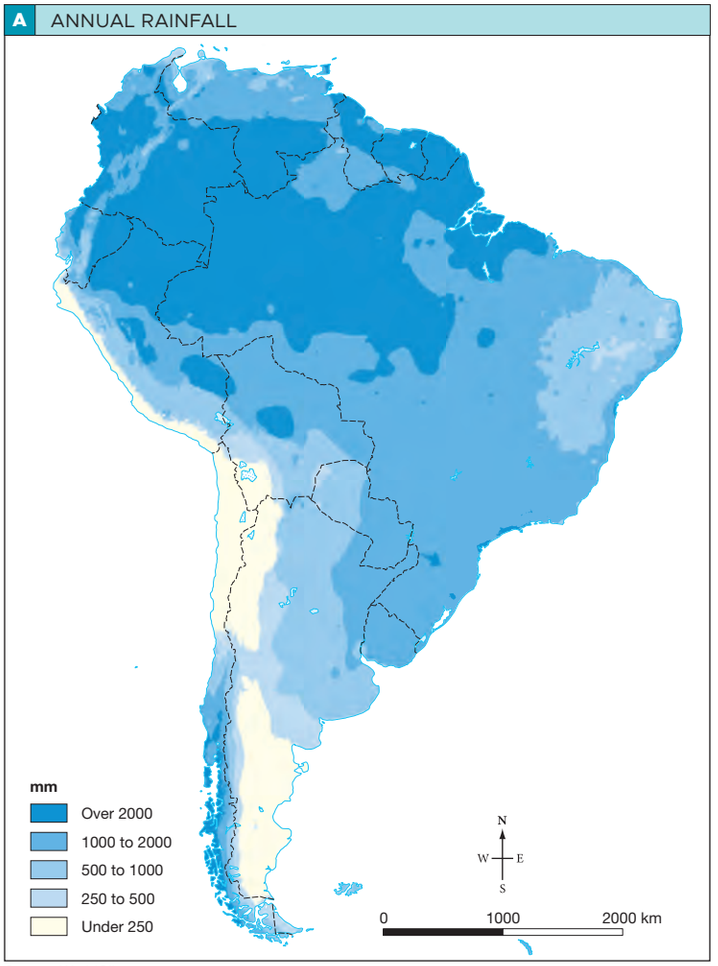
Highest annual rainfall:
Tutunendo (Colombia) 11 770 mm
(D7)

Lowest annual rainfall:
Arica (Chile) 0.8 mm
(D5)

Aerial view of the Amazon River, South America's longest river
(F6)

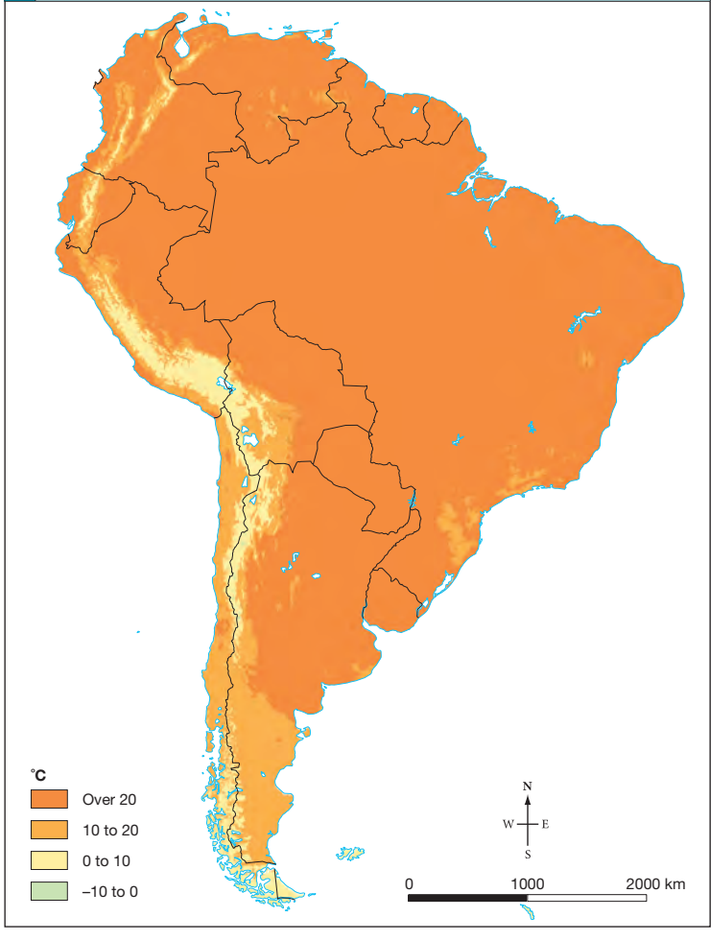


A ANNUAL RAINFALL



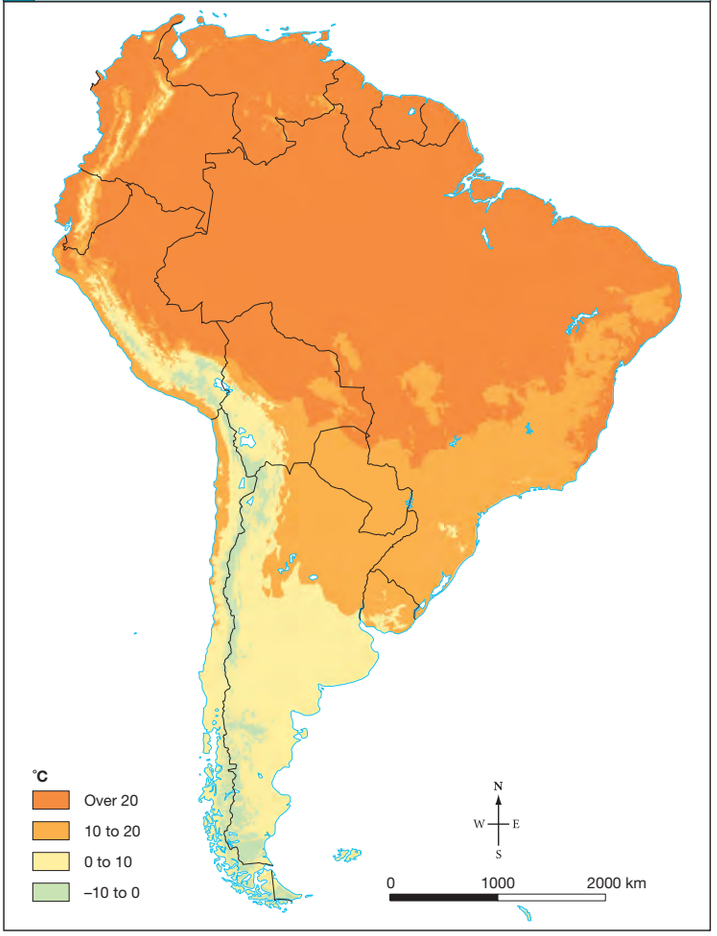
Source: WorldClim

B JANUARY TEMPERATURES



Source: WorldClim

C JULY TEMPERATURES



Source: WorldClim



Source: @ WorldSat International, 2017

Key

Delta and river | Desert | Forest | Lake | Mountains | Islands | Seamounts | Country borders

Illegal interconnections

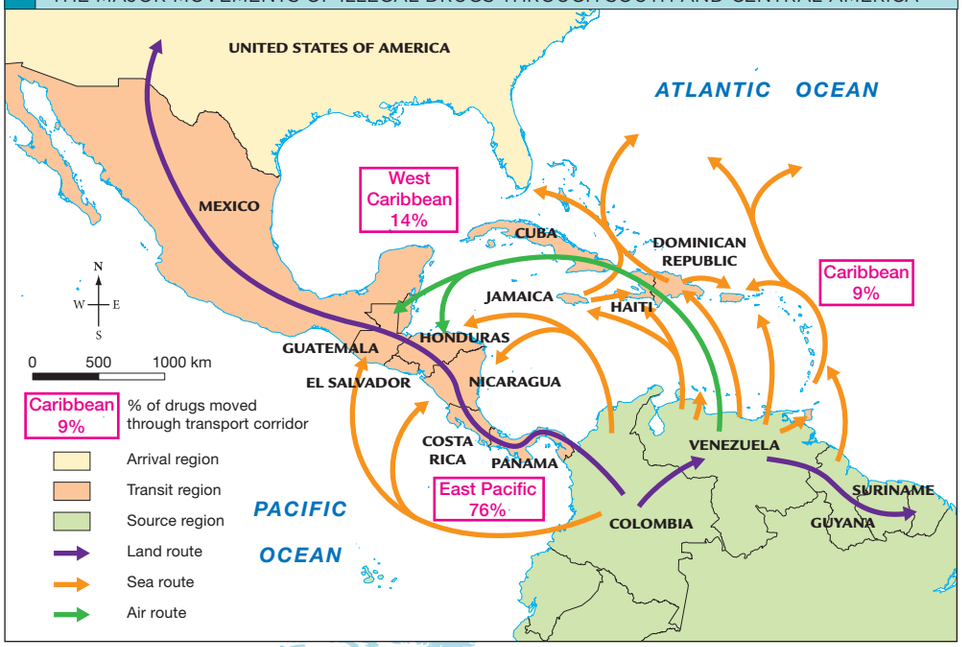
Not all trade is legal. Drug trafficking involves the cultivation, manufacturing, distribution and sale of illegal drugs. Colombia, Peru and Bolivia are the world's largest producers of cocaine. The coca plant leaves can be used legally for chewing or making tea. Once processed from coca into illegal cocaine, the drug is moved using a wide range of different transport methods from human mules, speedboats, small planes and even submarines **A**.

Countries in Central America, the Caribbean and Mexico have become transport corridors for trading the drugs internationally **B**. The United States is the largest consumer of cocaine and despite all efforts it is extremely difficult to prevent the entry of drugs due to the size of the population, scale of transport movements, and the availability of landing points **C**.

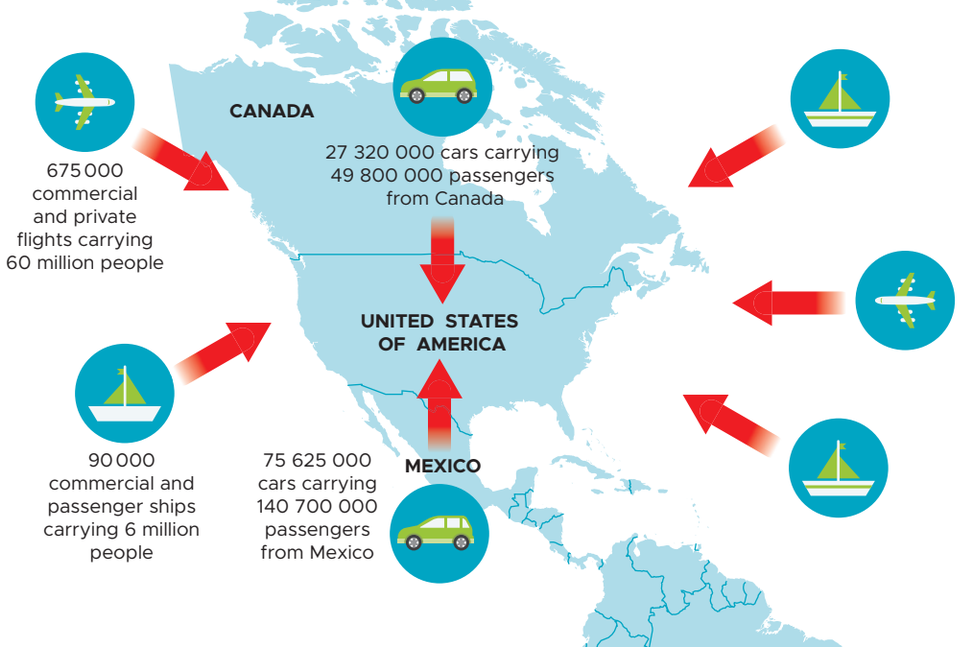
A *Homemade fibreglass submarine in Colombia, which could transport up to 2 tons of cocaine.* ▼



B THE MAJOR MOVEMENTS OF ILLEGAL DRUGS THROUGH SOUTH AND CENTRAL AMERICA



Source: Redrawn by Spatial Vision based on the data from National Public Radio, Council of Hemispheric Affairs, The Economist





C *Average yearly movements of people and goods into the United States* ◀



Source: Natural Earth Data, www.naturalearthdata.com

Key

- Lake; Dry lake
- River
- Wetland
- *Tolima 5616 m* ▲ Mountain
- **PERU** Country name
- Country border
- Country capital
- **Malpelo Island (Colombia)** Dependency
- **Sao Paulo** ■ Over 5 000 000 people
- **Belem** ● 1 000 000 to 5 000 000 people
- Aracaju ● 500 000 to 1 000 000 people
- Ica ● 100 000 to 500 000 people
- Codo ● Under 100 000 people
- Major road
- Major railway
- World Heritage Area

Height in metres: 6000, 4000, 2000, 1000, 500, 200, 0 Depression
0, 200, 1000, 2000, 4000 Depth in 6000 metres

Southern South America

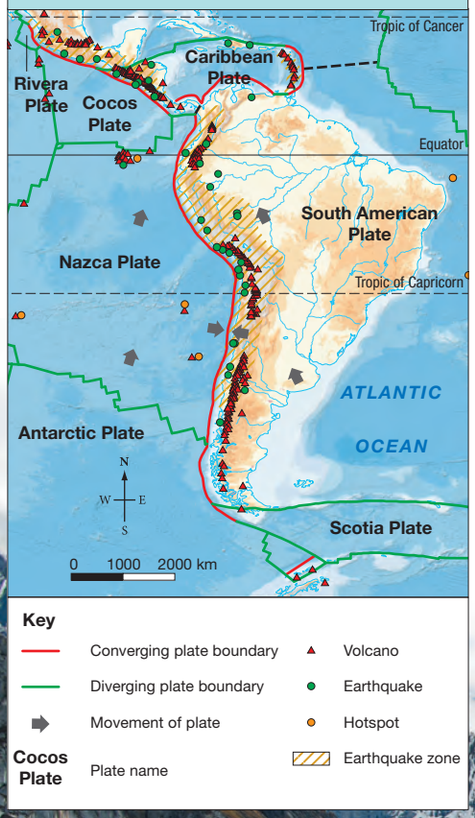
Landscapes and landforms

Many of South America's landscapes have been determined by the movement of tectonic plates over the last 170 million years **A**. The Nazca Plate, an oceanic tectonic plate, is moving eastwards and being forced to subduct under the South American Plate, which is trying to move northwest. As it subducts an oceanic trench has formed, the Peru-Chile Trench, reaching depths exceeding 6000 metres **B**.

The collision of the Nazca and South American plates has led to an uplift and crumpling of the South American Plate to form the Andes—a series of ranges, plateaus and depressions stretching almost 9000 kilometres from north to south on the continent **C**. The high peaks of the Andes include the continent's highest point of Mount Aconcagua at 6959 metres above sea level (C3). Magma has also extruded into the uplifted land and in places formed active volcanoes **A**.

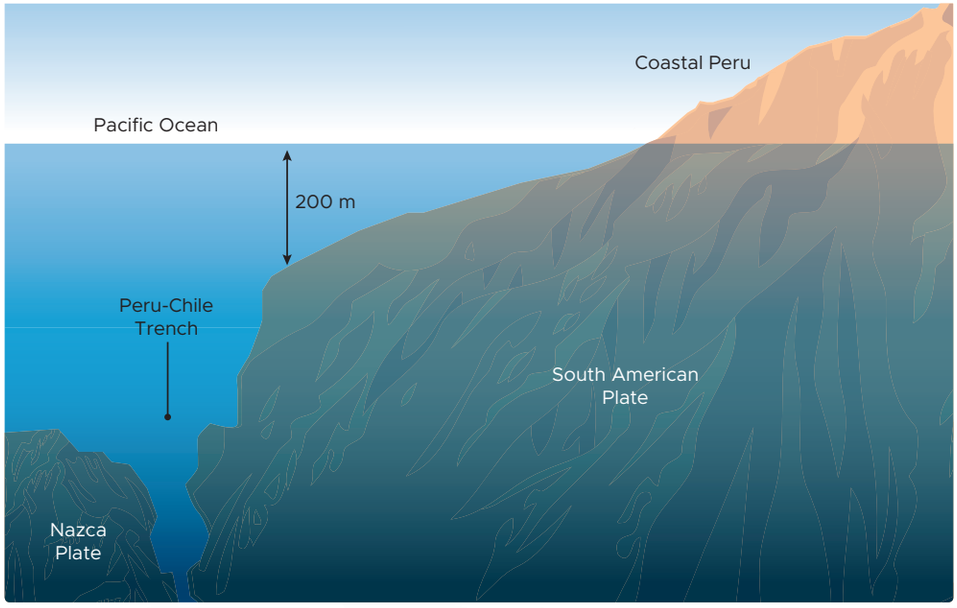
The plate movements continue today with the Nazca Plate advancing eastwards by a rapid 3.7 centimetres a year. The convergence or collision with the South American Plate results in stresses building up in the Earth's crust that release as earthquakes **A**. This region is famous for the severity of its earthquakes. The 1960 Valdivia earthquake recorded 9.5 on the Richter scale and the more recent 2010 southern Chilean reached 8.8 **D**. In 1994 the 8.2 inland Bolivian earthquake, recorded at a depth of 300 kilometres into the Earth's crust, was attributed to the subduction of the Nazca Plate.

A THE NAZCA AND SOUTH AMERICAN PLATES



Source: NOAA National Environmental Satellite, Data, and Information Service NESDIS

B *The Peru-Chile Oceanic Trench* ▼



C *Part of the Andes Mountains in Peru* ▼

D *Earthquake damage, Conception City Chile, 2010* ▼





Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

Key

- Lake; Dry lake
- River
- Wetland
- Maipo 5322 m ▲ Mountain
- CHILE Country name
- ⊛ Country capital
- South Georgia (UK) Dependency
- Sao Paulo ■ Over 5 000 000 people
- Santos ● 1 000 000 to 5 000 000 people
- Mendoza ● 500 000 to 1 000 000 people
- Bage ● 100 000 to 500 000 people
- Rio Gallegos ● Under 100 000 people
- Major road
- Major railway
- World Heritage Area

Height in metres: 6000, 4000, 2000, 1000, 500, 200, 0, Depression
Depth in metres: 0, 200, 1000, 2000, 4000, 6000

INVESTIGATING THEMES





15˚44' S, 127˚49' E

HOME VALLEY STATION, KUNUNURRA: A CATTLE STATION OWNED BY THE TRADITIONAL OWNERS, THE BALANGGARRA PEOPLE



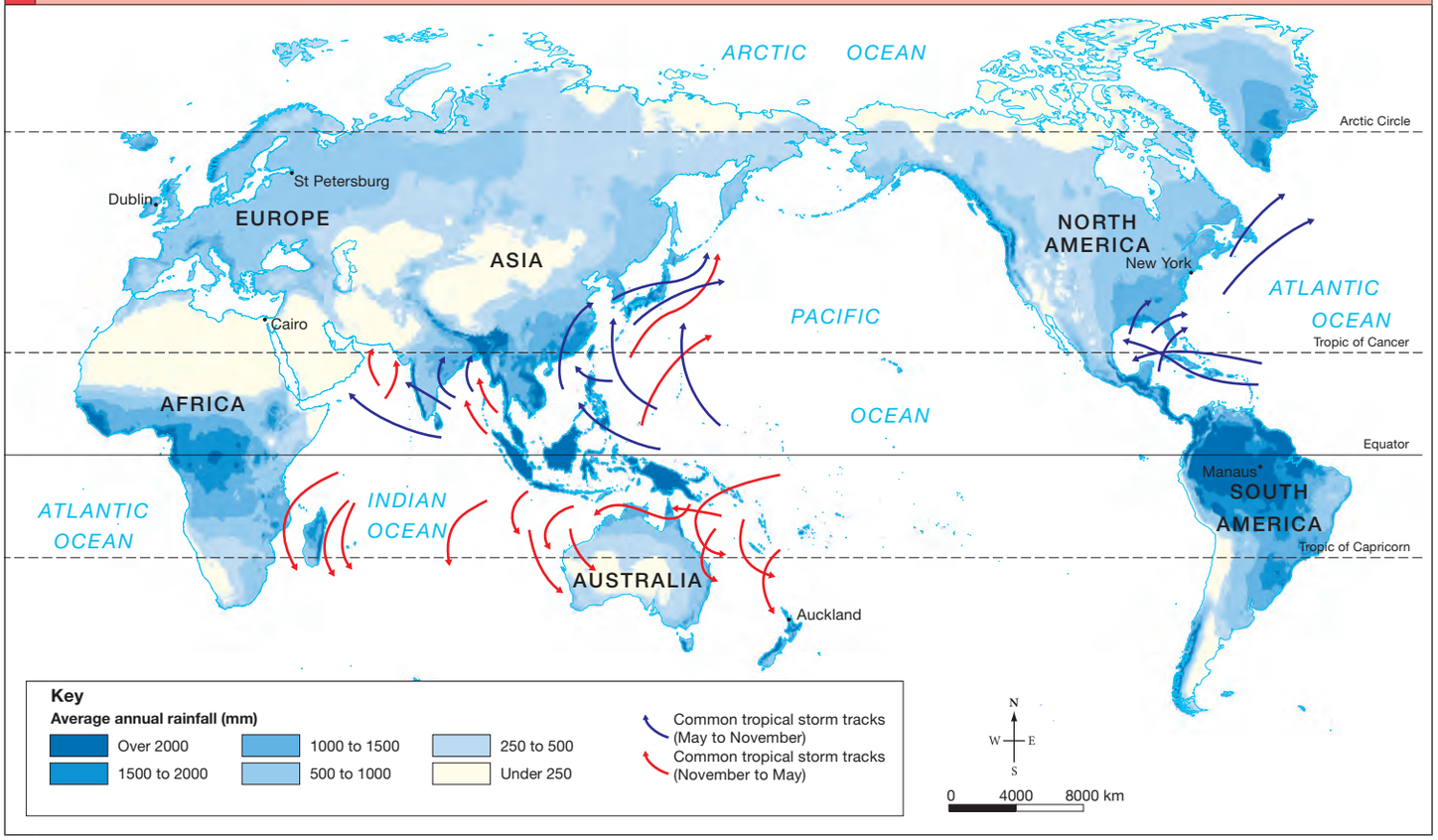
Water in the world

World water resources

Water resources are unevenly distributed through the world A C. In some regions clean, fresh water is available only to less than 50 per cent of the population B. The United Nations Millennium Development Goals aims for great reliability of water and access to it for all people . Yet it predicts an increasing scarcity of water for 4 billion people by 2050.

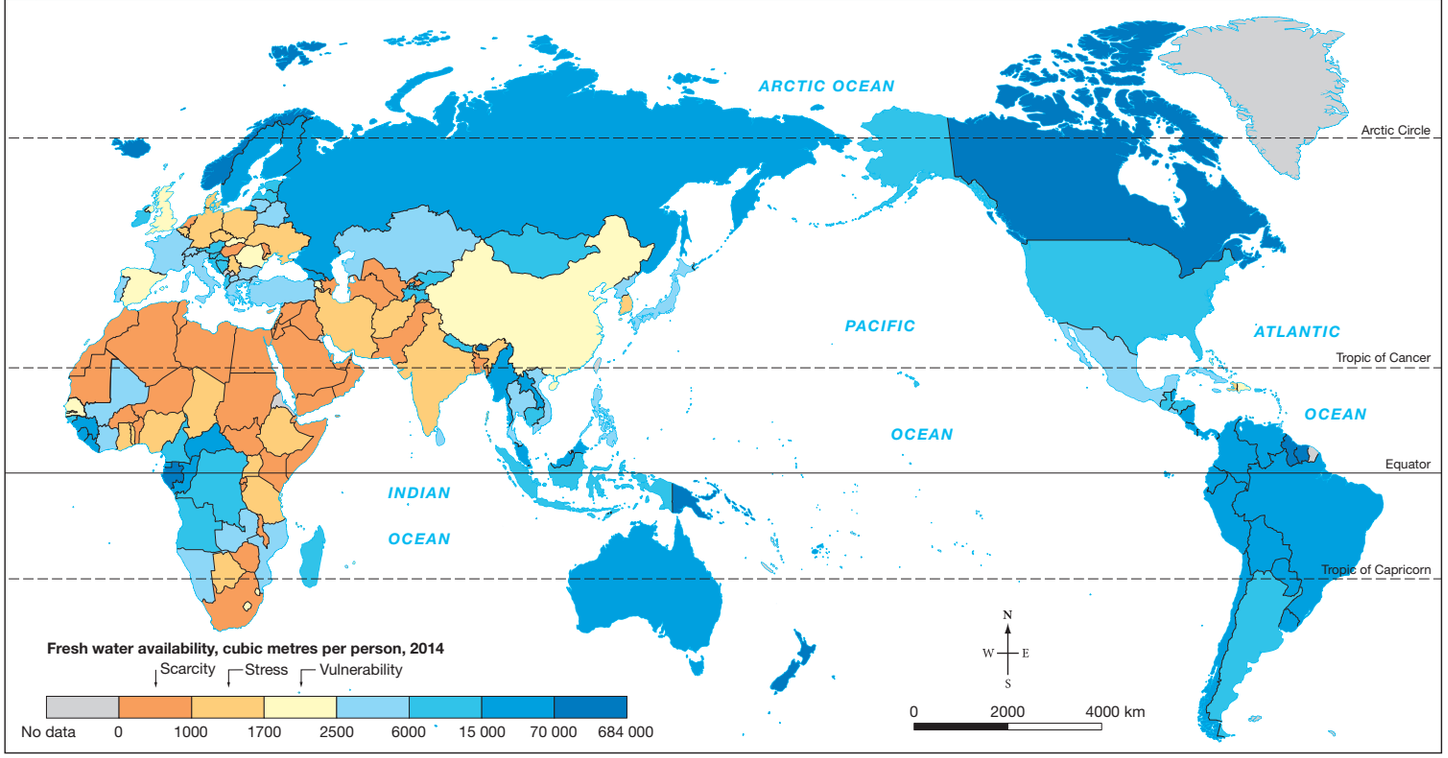
Water scarcity occurs when the demand for water is greater than the amount withdrawn from rivers, lakes and underground sources. Rapidly growing populations, expanding agriculture, higher living standards and increasing water usage E F, together with changing climatic patterns are likely to lead to significant water shortages in many regions of the world G.

A ANNUAL RAINFALL



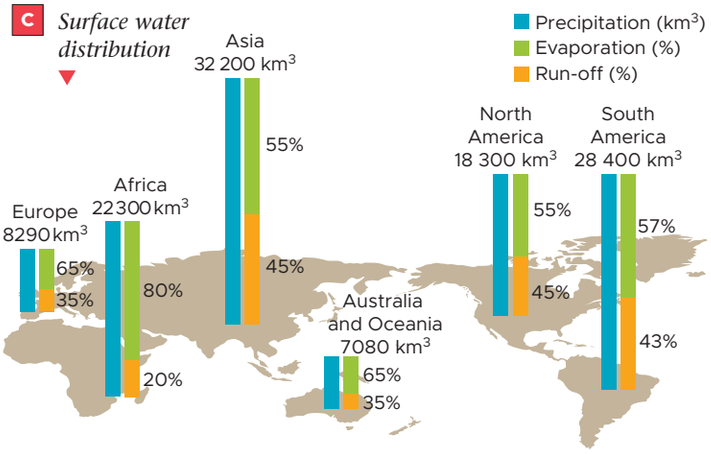
Source: WorldClim

B FRESH WATER AVAILABILITY

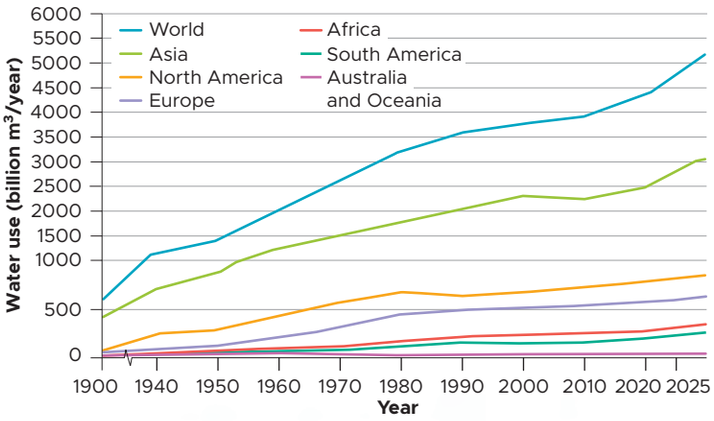


Source: United Nations

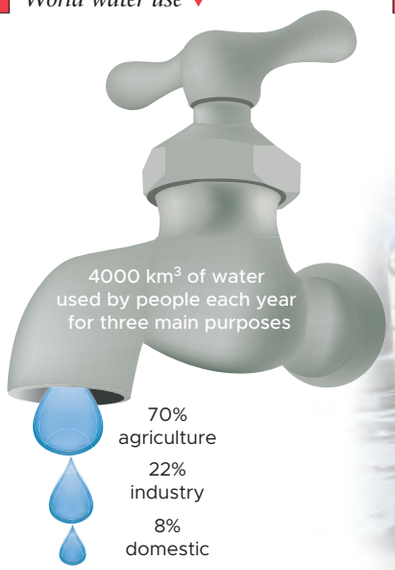
C *Surface water distribution* ▼



D *Water consumption by continent, 1900–2025* ▼



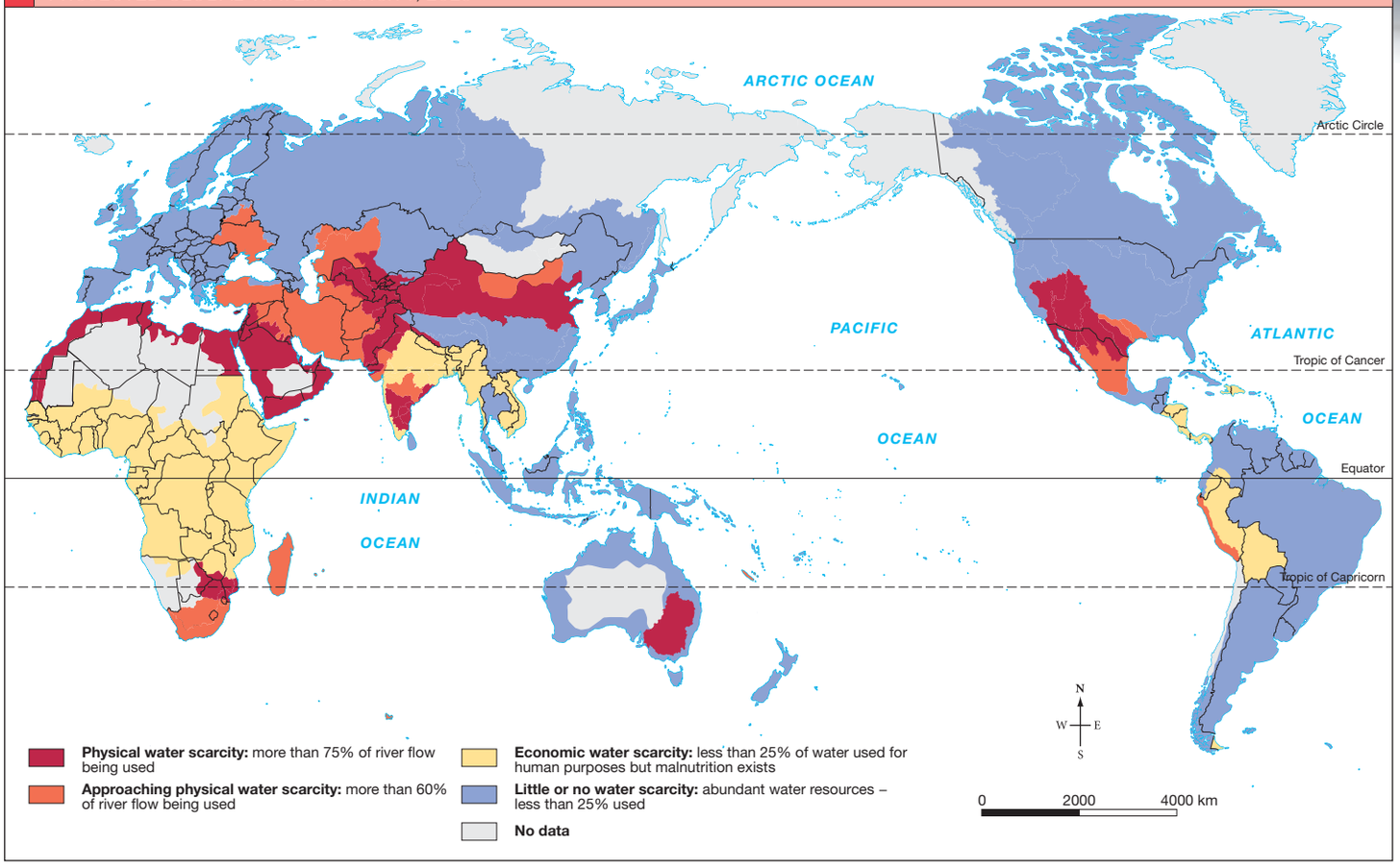
E *World water use* ▼



F *An urban water supply in Hoi An, Vietnam. Growing urban populations are putting pressure on existing water supply systems.* ▼



G PROJECTED GLOBAL WATER SCARCITY, 2025



Source: World Water Development Report 4. World Water Assessment Programme WWAP, March 2012

Egypt: the Nile

The Nile River provides nearly all the fresh water for domestic use, agriculture and industry in Egypt. It is also an important transport route, connecting all of Egypt from Lake Nasser in the south to the delta in the north A. Although the country provides no water into this exotic river, Egypt's economic and military strength gives it significant control over the whole river system. Climate change, population and up-stream development (such as the Renaissance Dam H) challenge this control, in a country where available water per person is reducing. In 1990, the water available per capita in cubic metres averaged was 1123. It is expected to fall to 630 cubic metres by 2025. The water use is regulated by the 1959 Nile Agreement, which allows Egypt 84 billion cubic metres of water when it enters Lake Nasser A. Egypt's ability to control the annual flooding of the lower Nile River valley, through the construction of dams and the building of irrigation systems, has contributed greatly to Egypt's economic development. However, the Aswan High Dam has cut off the natural flow of nutrient-rich silt to the valley floor, which has resulted in Egyptian farmers having to use increased amounts of fertiliser to maintain yields. Salinity is a developing issue. The Nile flows north to the fertile delta, where the rising level of the Mediterranean Sea and reduced silt mean the delta is receding I.

A THE NILE CONNECTS THE NORTH AND SOUTH OF EGYPT



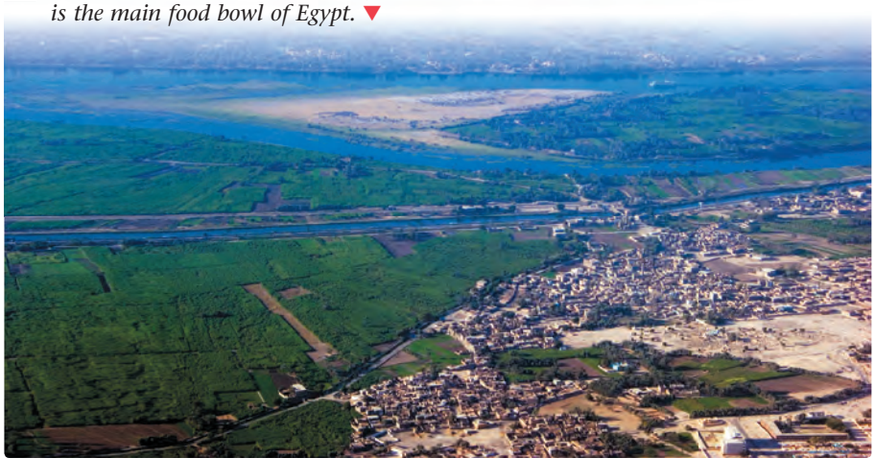
Source: Spatial Vision

I THE NILE SUPPORTS 96 PER CENT OF EGYPTIANS IN THE SAHARA DESERT.



Source: NASA Blue Marble

B *The Nile Delta (a triangle 240 by 160 kilometres in area) is the main food bowl of Egypt.* ▼



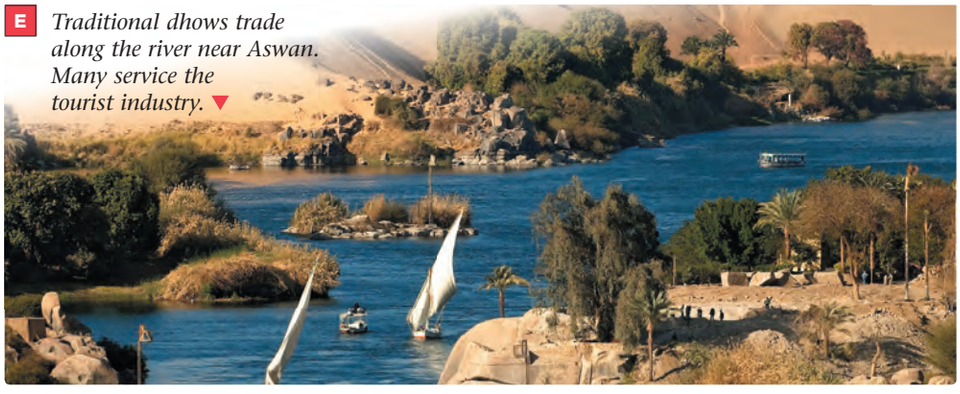
C *The Nile connects Cairo to its agricultural hinterland and also serves a modern industrial city.* ▼

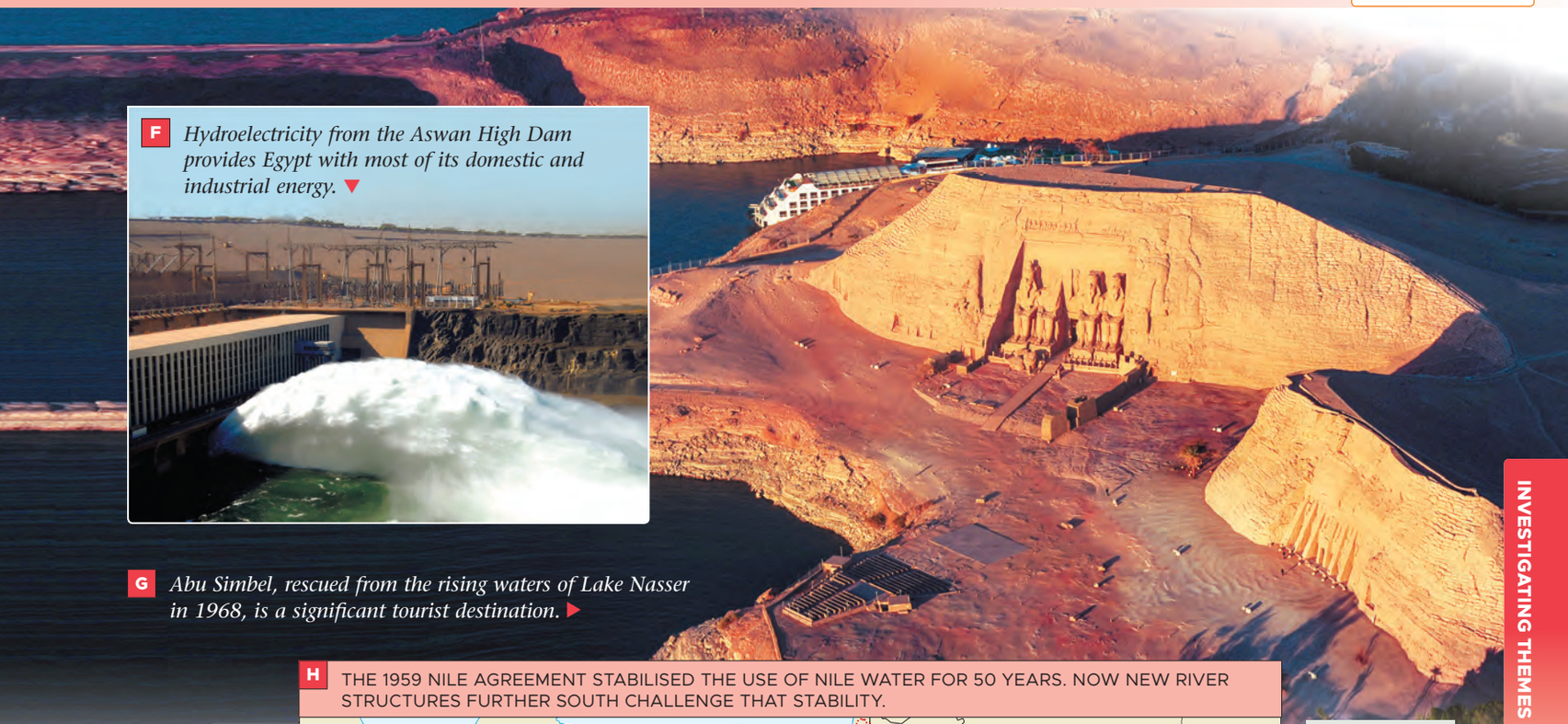


D *Irrigation allows high production from the soil deposited by the Nile over centuries.* ▼



E *Traditional dhows trade along the river near Aswan. Many service the tourist industry.* ▼





F *Hydroelectricity from the Aswan High Dam provides Egypt with most of its domestic and industrial energy.* ▼

G *Abu Simbel, rescued from the rising waters of Lake Nasser in 1968, is a significant tourist destination.* ▶

H THE 1959 NILE AGREEMENT STABILISED THE USE OF NILE WATER FOR 50 YEARS. NOW NEW RIVER STRUCTURES FURTHER SOUTH CHALLENGE THAT STABILITY.

Delta Barrage 1861

Assiut Barrage 1902

Aswan Dam (Low 1902; High 1970)

New Valley Project 2005

Jebel Aulia Dam 1937

Roseires Dam 1966

Jonglei Canal 1972

Owen Falls Dam 1954

Edfina Barrage 1951

Nag Hammadi Barrage 1930

Tushka Diversion 1978

Merowe 2009

Khasm el Girba 1964

Sennar 1925

Tekeze Dam 2009

Tana-Beles Link 2010

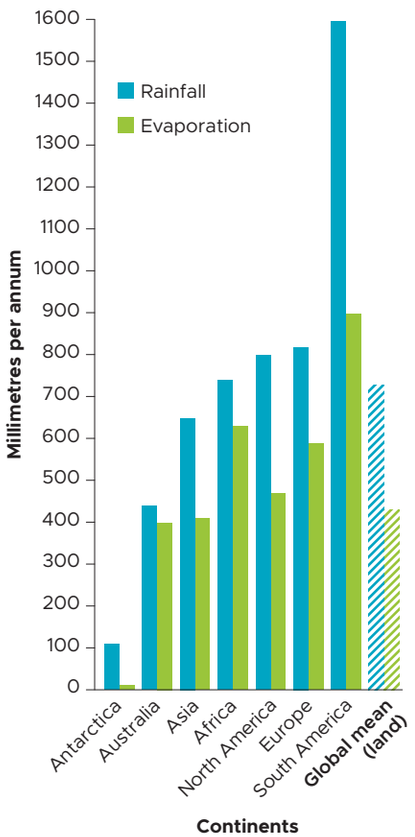
Renaissance Dam (in progress)

Source: Waterbase

Water use: Australia

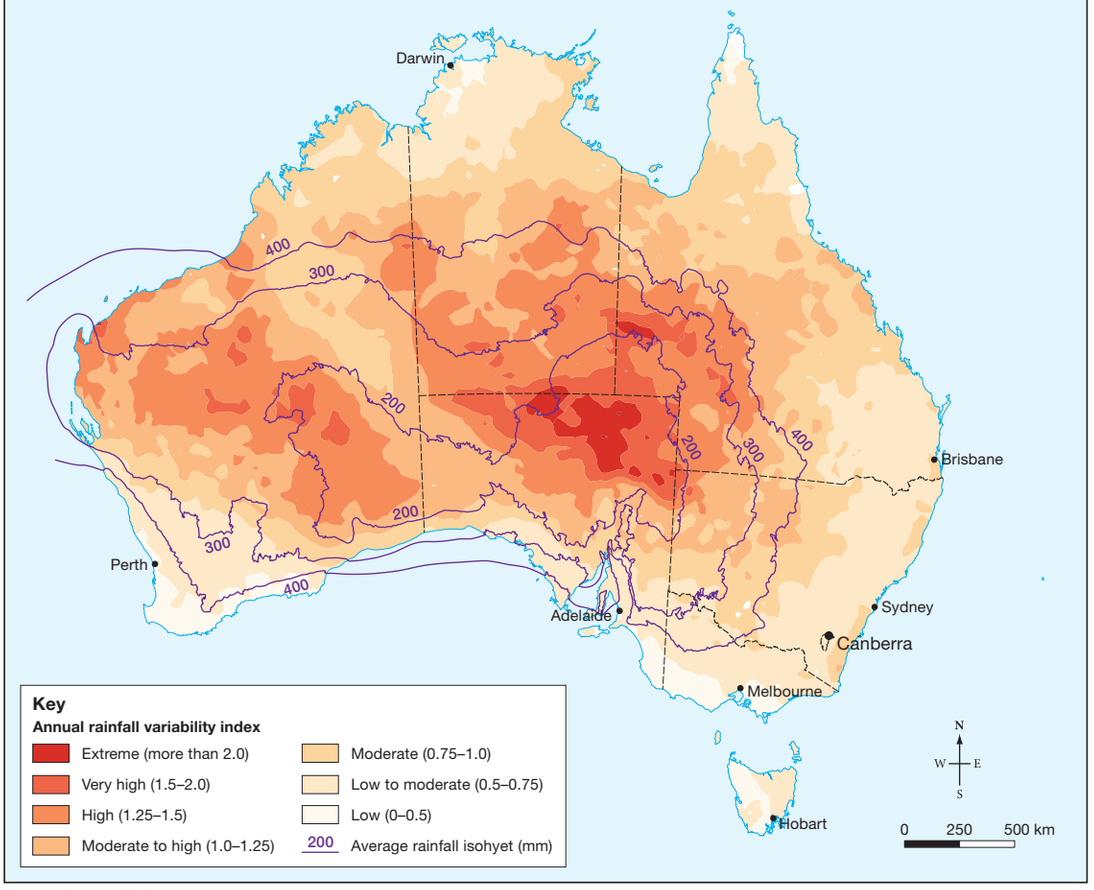
Australia's average annual rainfall is well below world averages. With hot temperatures, evaporation rates are very high **A**. Areas of high rainfall variability **B** are associated with lower rainfall in the centre and central-west of the country. The response, from the time of European settlement, has been to seek water security through the building of dams and control of rivers **C**. Water has also been moved from areas of relative plenty to those of scarcity, such as via the Kalgoorlie Pipeline **C**. Proposals to move water from the water-rich tropics to the dry centre and south-west region have been made frequently, such as a pipeline from Kimberley to Perth suggested in 2006. To further ensure water supply to growing urban populations, six desalination plants have been developed **C**.

A *Average rainfall and evaporation per continent* ▼



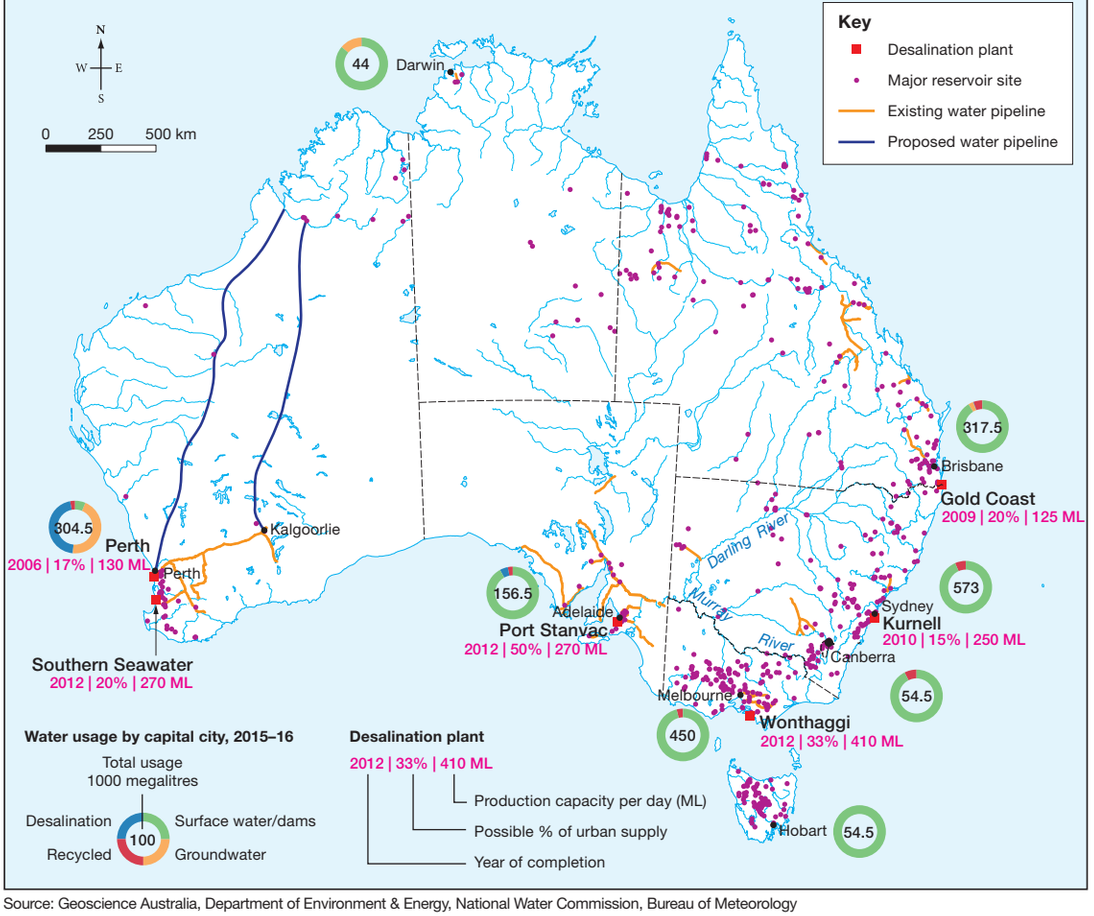
Source: http://www-das.uwyo.edu/~geerts/cwx/notes/chap10/continents.html

B RAINFALL AND RAINFALL VARIABILITY IN AUSTRALIA



Source: Bureau of Meteorology

C THE DISTRIBUTION OF MAJOR DAMS, WATER PIPELINES AND DESALINATION PLANTS IN AUSTRALIA



Source: Geoscience Australia, Department of Environment & Energy, National Water Commission, Bureau of Meteorology

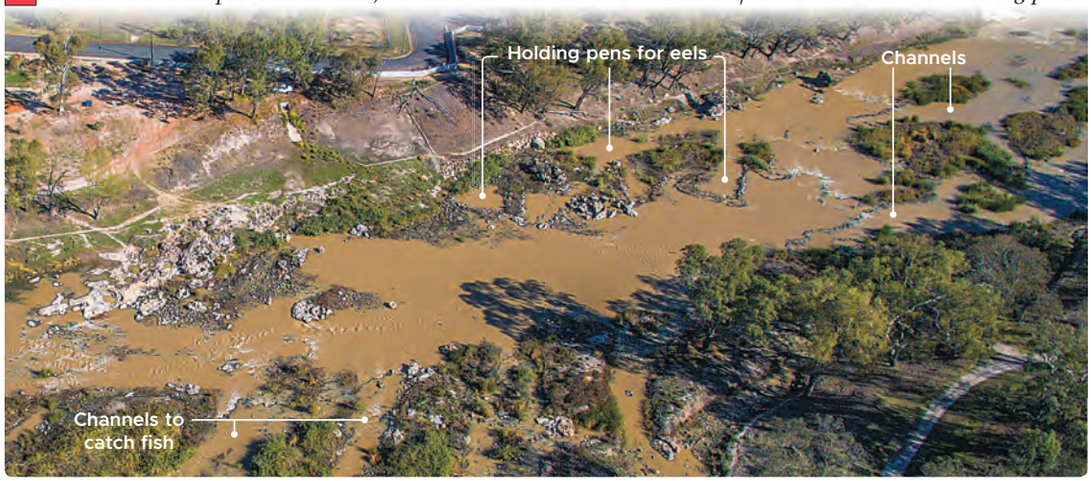
Water use: Indigenous Australia

Indigenous people have economic, social, cultural and spiritual links to surface and groundwater, which have helped them to successfully occupy Australia for over 40 000 years. Scarce water resources were managed through building fish traps and holding pens to contain fish, such as eels **D**. The vast inland river systems were believed to be trails of the Rainbow Serpent, and were centres of social, cultural and spiritual life. Coroborees and ceremonies were held there and important burial sites were located beside rivers and lakes, such as Lake Victoria, Australia's largest known Indigenous burial site.

There are now consultation processes with Indigenous people in developing water policy. In northern Australia, the size of the Indigenous population, their land rights and strong cultural attachment to country, mean that the Indigenous voice is very important. This water is not only spiritually significant but offers a means of economic growth through activities such as tourism at Kakadu **E**.

In the southern states, over 40 Indigenous groups have country in the Murray–Darling Basin. Many maintain their connections to traditional lands through ceremonies and by guarding important sites **F**. In Victoria, the Dja Dja Warung are working to reinforce connections to the rivers through video education programs. This group belongs to MLDRIN, a group of traditional owners. The Barapa Barapa Water for Country Project has identified, mapped and recorded culturally important sites such as scar trees (where canoes were carved), middens, fish traps and ceremonial grounds in the Gunbower Forest.

D *Traditional eel traps at Brewarrina, on the Barwon River. Woven baskets funnelled the eels into holding pens.* ▼



E INDIGENOUS AUSTRALIANS HAVE STRONG SPIRITUAL AND ECONOMIC LINKS WITH RIVERS AND LAKES.



Source: Geoscience Australia

F *The Rainbow Serpent: creator of rivers in Indigenous lore* ▼

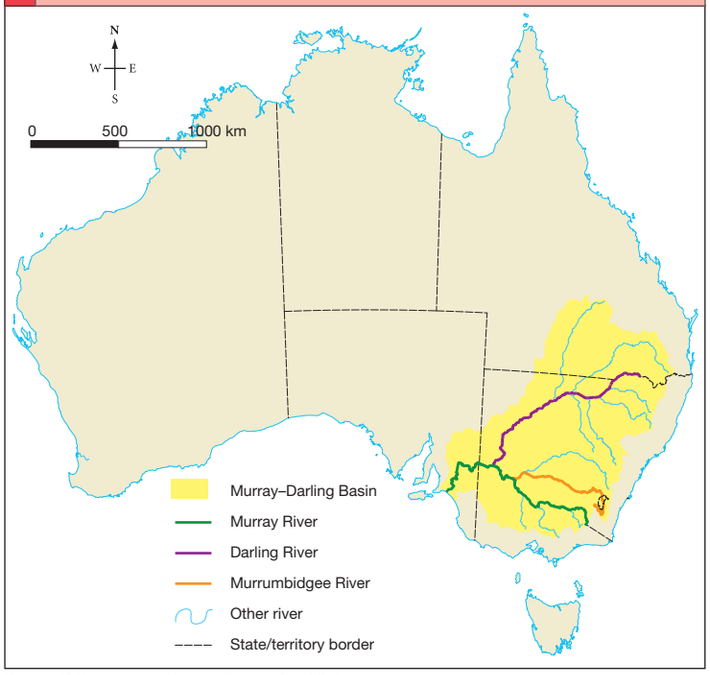


Albury–Wodonga

The extensive floodplains around Albury–Wodonga make up part of the Murray–Darling River, Australia's largest and most important river system. The river and its tributaries connect places by providing water for agricultural, industrial, domestic and recreational use across a region that makes up 14 per cent of Australia's total area **A**. Water from the Murray River also links places with unreliable water supplies outside the catchment, with water being piped to Adelaide and beyond **B**. To increase flow, water is also transferred from the Snowy River into the Murray River via the Snowy River Scheme.

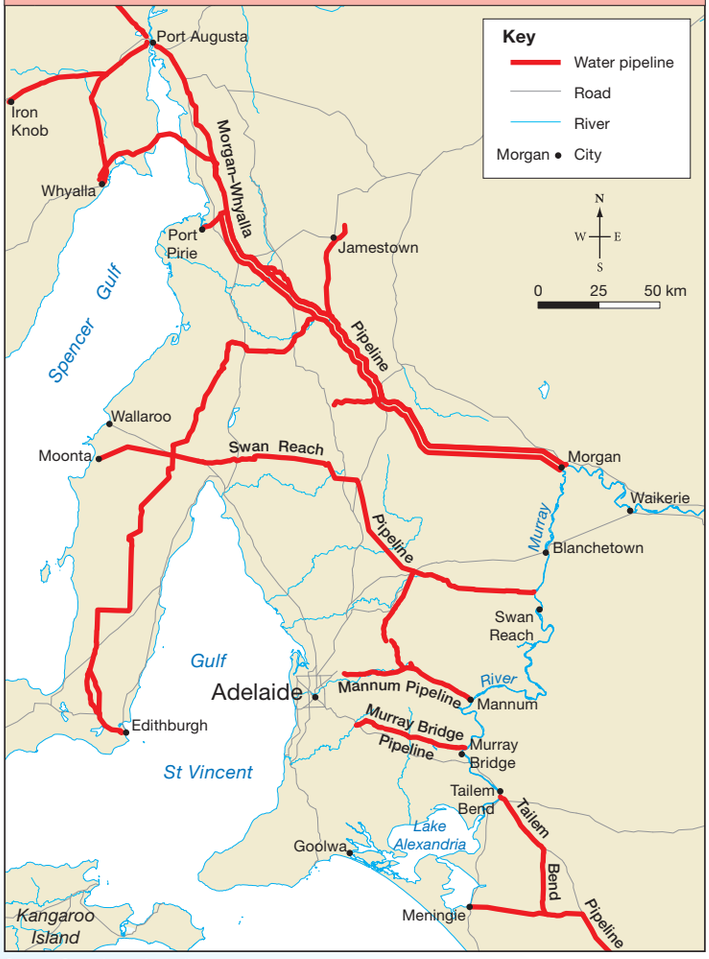
Much of the river catchment is relatively flat land, which causes the river to slow down and create extensive floodplains, meander bends and wetlands **C**. During floods, the river breaks its banks and covers surrounding areas, replenishing wetlands with water. As the flood recedes, nutrient-rich water returns to the river, improving aquatic and terrestrial ecosystems **D**.

A THE MURRAY–DARLING BASIN



Source: © Commonwealth of Australia MDBA 2017

B PIPELINES CONNECT MURRAY RIVER WATER TO PLACES IN SOUTH AUSTRALIA.

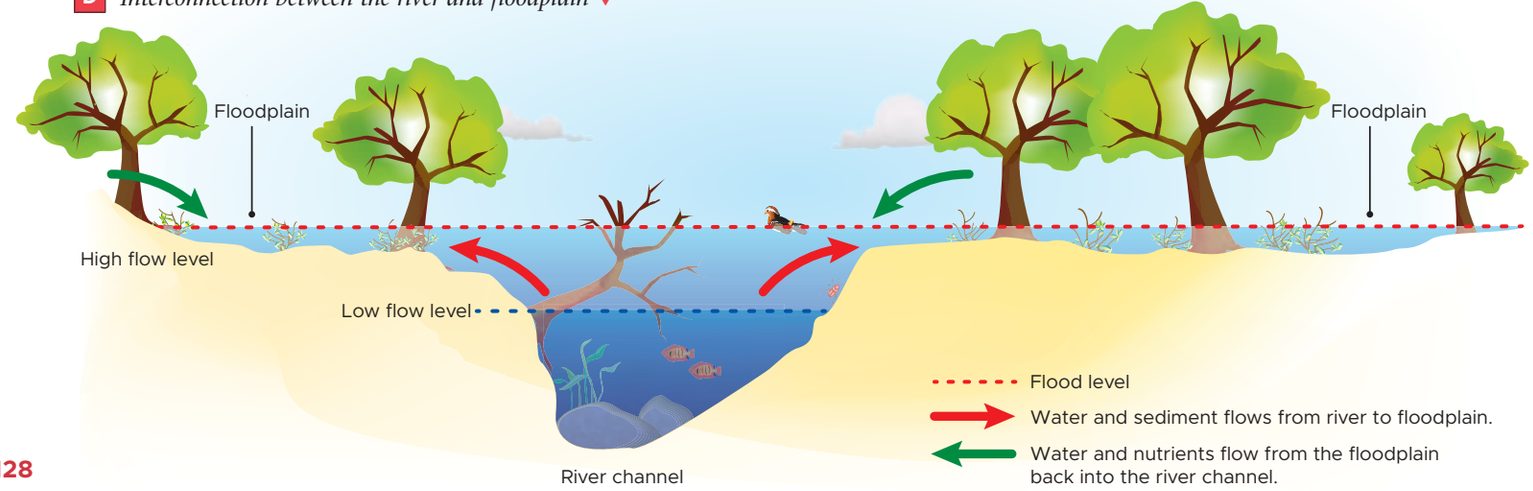


Source: Geoscience Australia

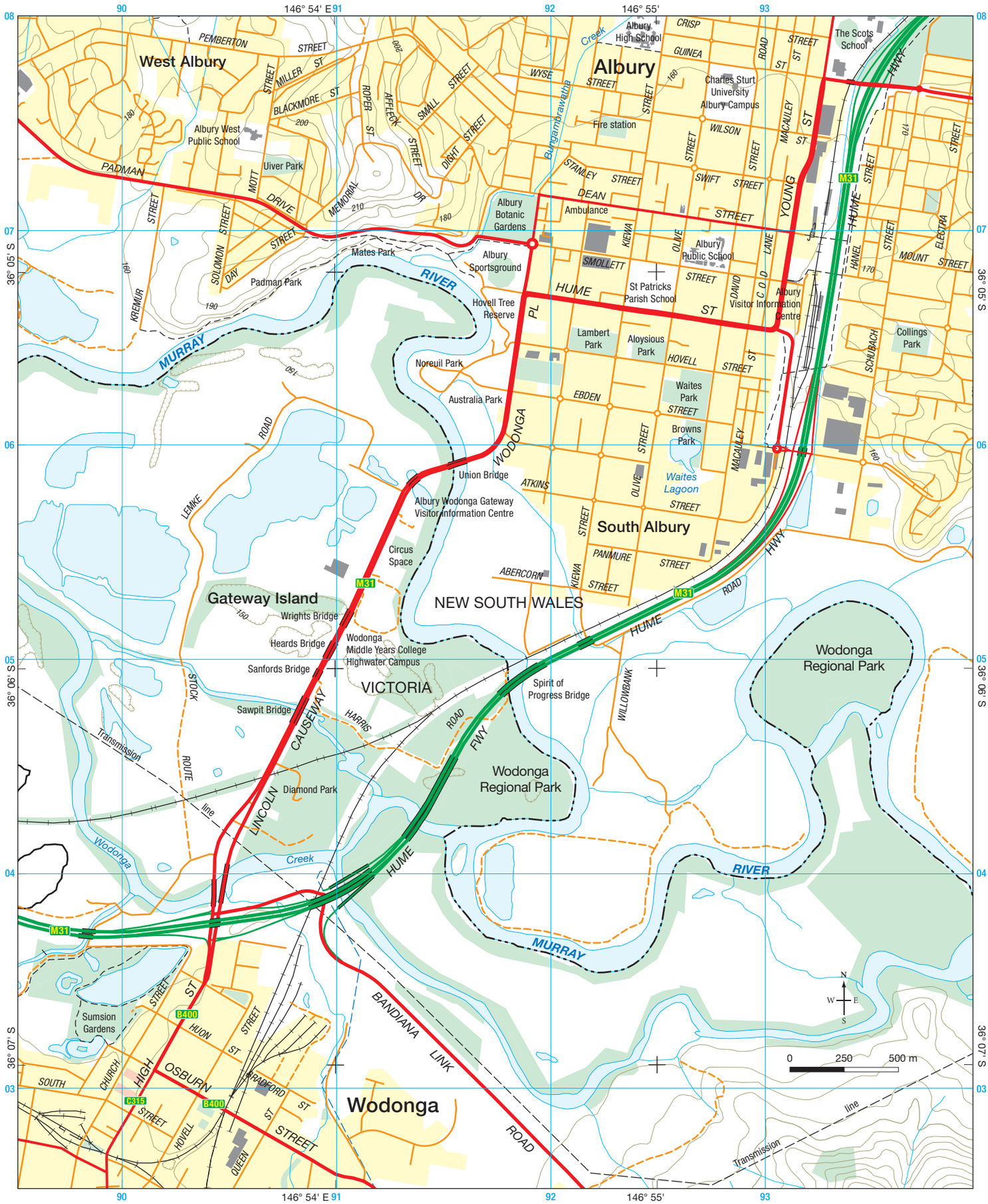
C *The Murray River floodplain near Albury–Wodonga* ▼



D *Interconnection between the river and floodplain* ▼



E TOPOGRAPHIC MAP OF ALBURY–WODONGA



Source: Department of Environment, Land, Water & Planning

Key

- Water area
- Watercourse or canal
- Contour
- Transmission line
- Water pipeline
- Park, reserve
- Built-up area
- Railway
- State border
- Freeway
- Principal road
- Secondary road
- Minor road
- Track
- Footpath
- Freeway bridge
- Principal road bridge



Place and liveability

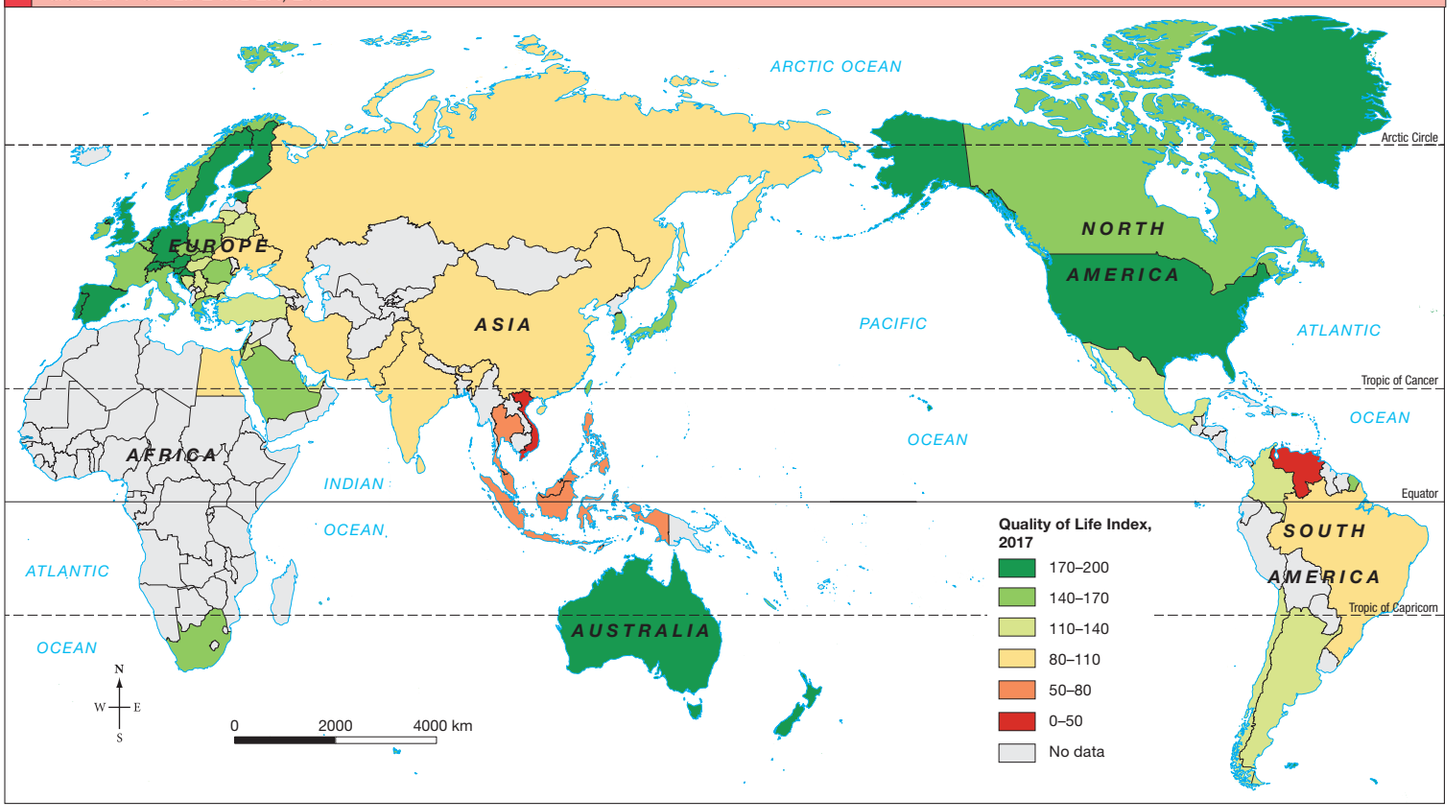
World

There are a number of ways that we can measure the liveability of different places based on their living conditions. However, different criteria produce different rankings.

The Quality of Life Index **A** ranks countries using data about health, environment, education, wealth, democracy and peace. According to this ranking, countries in North America and Europe have the highest quality of life.

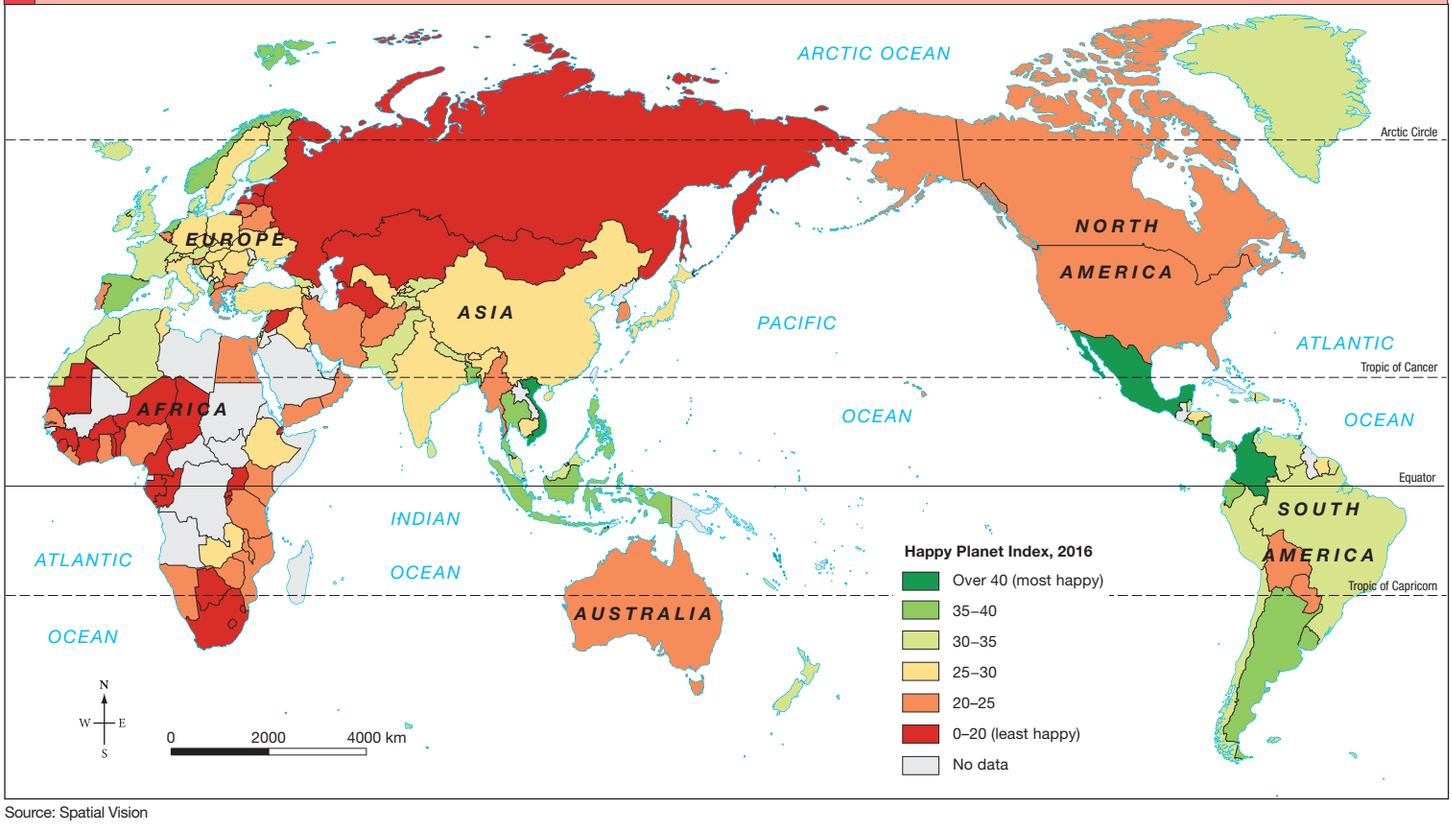
The Happy Planet Index is another way we can measure liveability by analysing the wellbeing of a country's people **B**. This index uses data on life expectancy, wellbeing and

A QUALITY OF LIFE INDEX, 2017



Source: Numbeo

B HAPPY PLANET INDEX, 2016



Source: Spatial Vision

ecological footprint. According to this ranking, countries in Central and South America have the best quality of life.

The Economist Intelligence Unit (EIU) ranks cities each year on their liveability out of a score of 100 **C** using data about stability, healthcare, culture and environment, education and infrastructure. According to this ranking, cities in Australia and Canada are considered the most liveable.

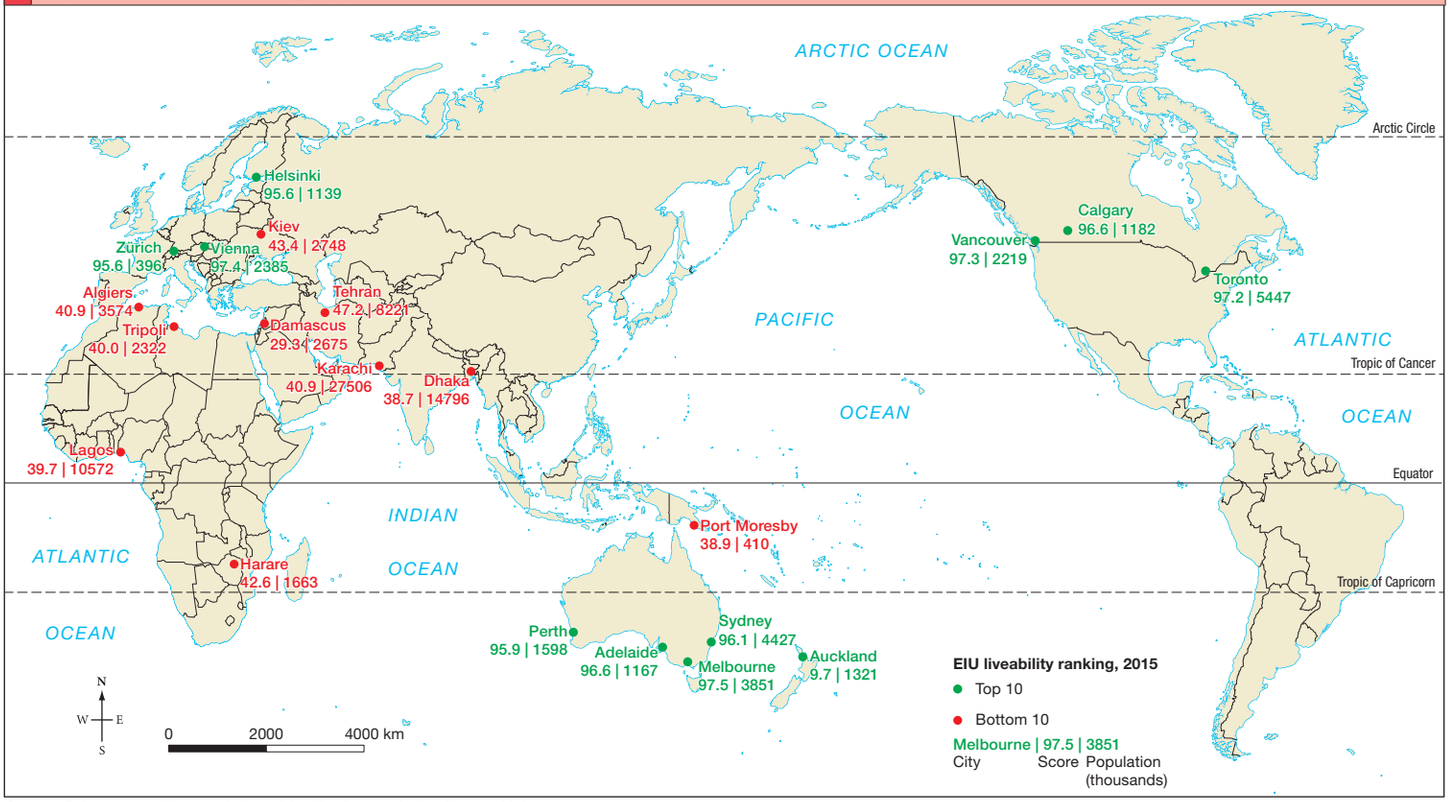
Melbourne

Melbourne, population of 4.5 million, is a city that experiences high liveability due to the quality of its healthcare, education, infrastructure, culture and environment, and stability **D**. One of the key factors in determining liveability is the amount of green space available. Melbourne is home to 555 hectares of green space, which is enjoyed by its residents **E**. Melbourne's Open Space Strategy, which was developed in 2012, recognises the importance of green spaces as places that improve mental and physical wellbeing through informal exercise, interactions with nature, and social contact and development.

Damascus

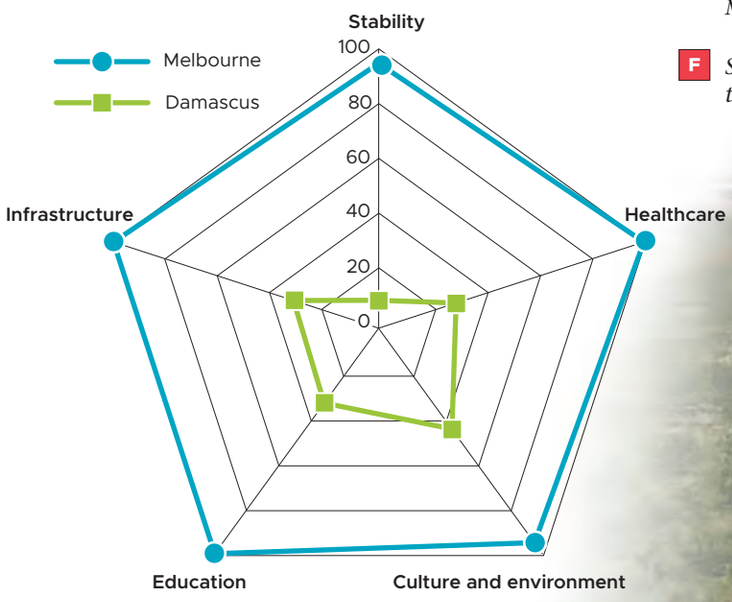
When measuring liveability, stability — which is based on civil unrest crime and threat of terror — carries more weight than other factors. Damascus, capital of Syria, is a city that experiences low rates of stability due to civil unrest **D**. Since 2011, millions of refugees **F** have left the country, and Damascus remains a city with low liveability.

C EIU LIVEABILITY RANKING, 2015



Source: © Reproduced by permission of the The Economist Intelligence Unit

D *EIU ranking criteria for Melbourne and Damascus* ▼



E *Green space in front of Melbourne State Library* ▶

F *Syrian refugees fleeing the country* ▼





Urban liveability

Australia is one of the most urbanised countries in the world, with over 89 per cent of the population living in urban areas A. Australia's population is clustered around the country's coastline and in cities. However, the liveability of urban areas ca vary considerably.

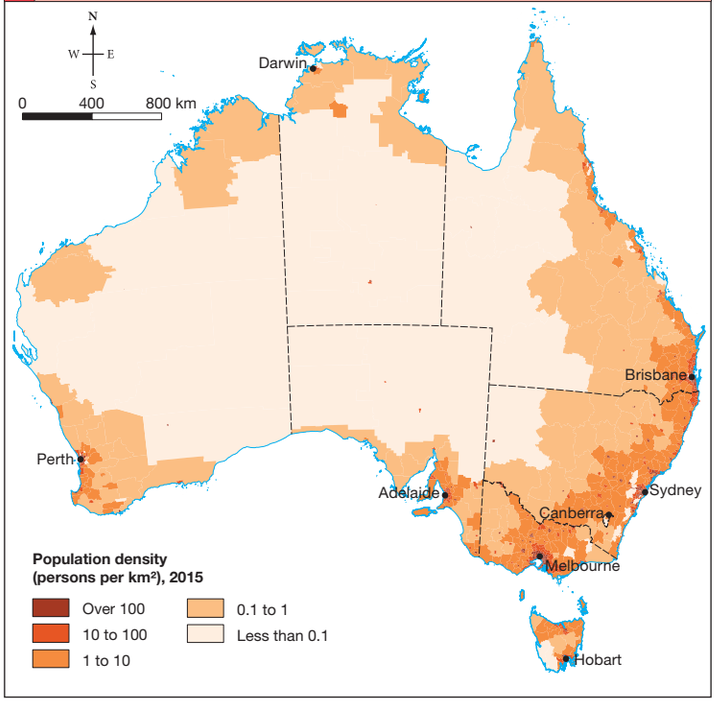
The liveability of a place can be assessed by rating features such as: environmental quality, crime and safety, education and health provision, access to shops and services, recreational facilities and cultural activities. Such criteria can be used to form an index of liveability such as for Melbourne B.

Melbourne is one of the world's lowest-density cities, stretching more than 100 kilometres from east to west and 90 kilometres from north to south. There is a difference in liveability between living in the inner areas of Melbourne C and living in the outer suburbs D. House prices are higher the closer that you live to the central business district (CBD) E and consequently most population growth occurs in the outer growth suburbs F.

One feature that changes as you move from the inner suburbs to the outer suburbs is access to public transport G.

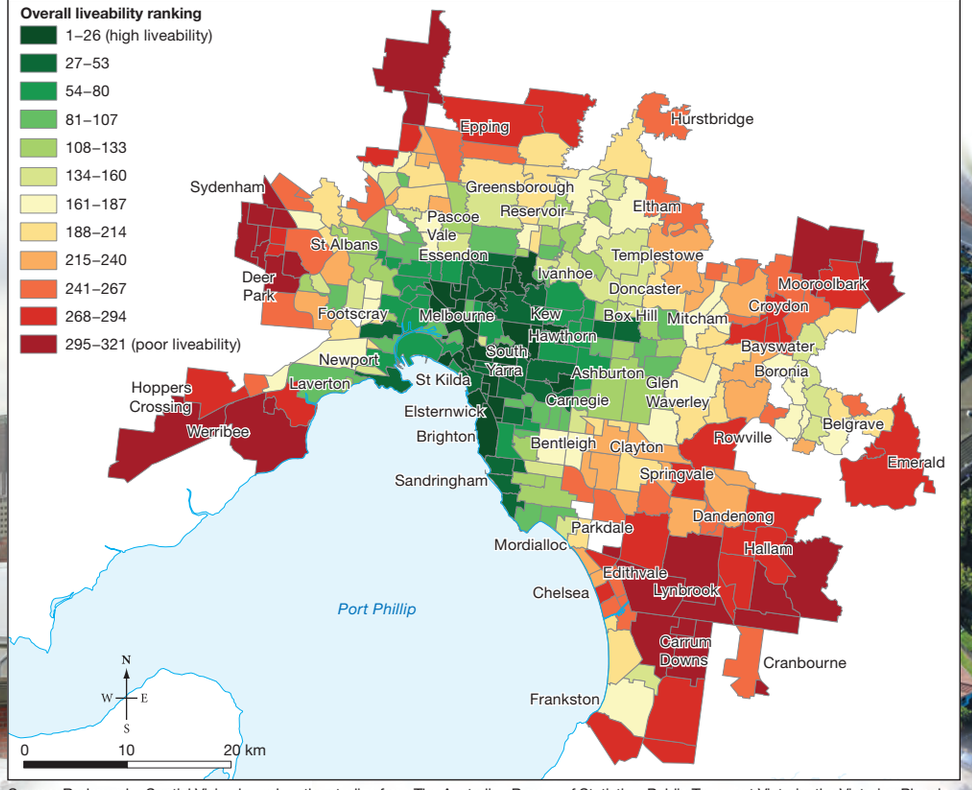
Five million Australians now live in urban areas in the outer growth areas of cities. This can create a variety of problems, such as congested roads, crowded schools and healthcare facilities, and inadequate public transport.

A POPULATION DENSITY AUSTRALIA



Source: Australian Bureau of Statistics

B INDEX OF LIVEABILITY IN MELBOURNE, 2015



Source: Redrawn by Spatial Vision based on the studies from The Australian Bureau of Statistics, Public Transport Victoria, the Victorian Planning Department, VicRoads, Crime Statistics Agency Victoria and the Federal Communications department

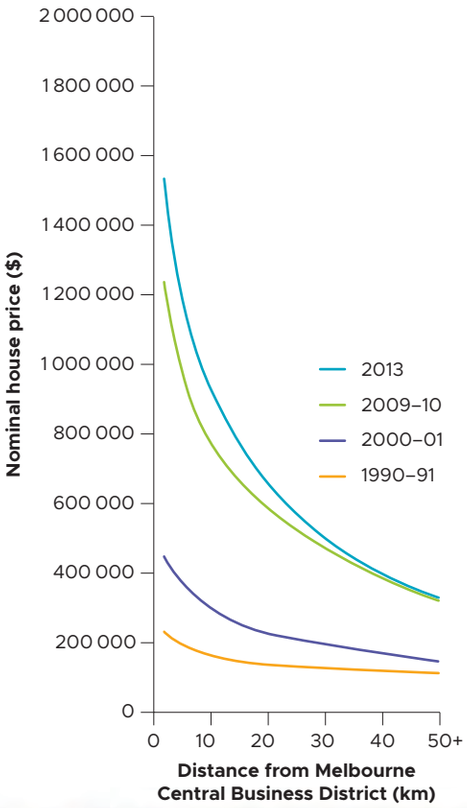
C *Inner suburb, Melbourne* ▼



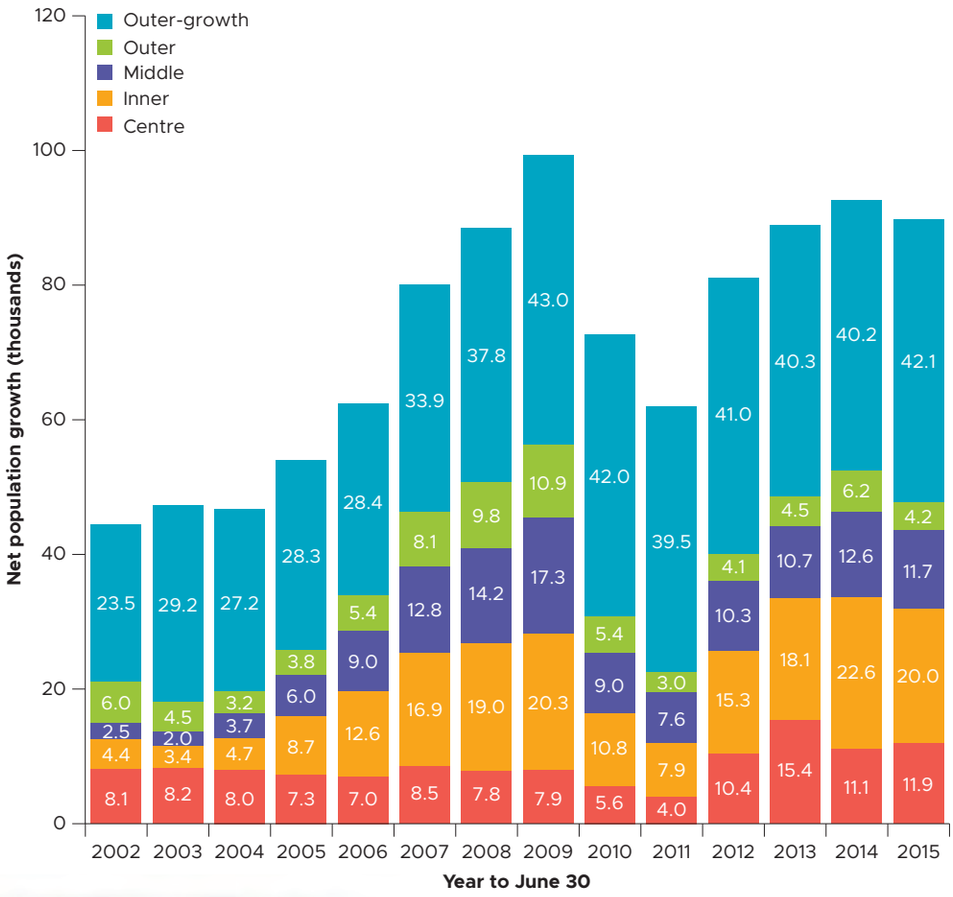




E *House prices versus distance from CBD, Melbourne, for selected years* ▼



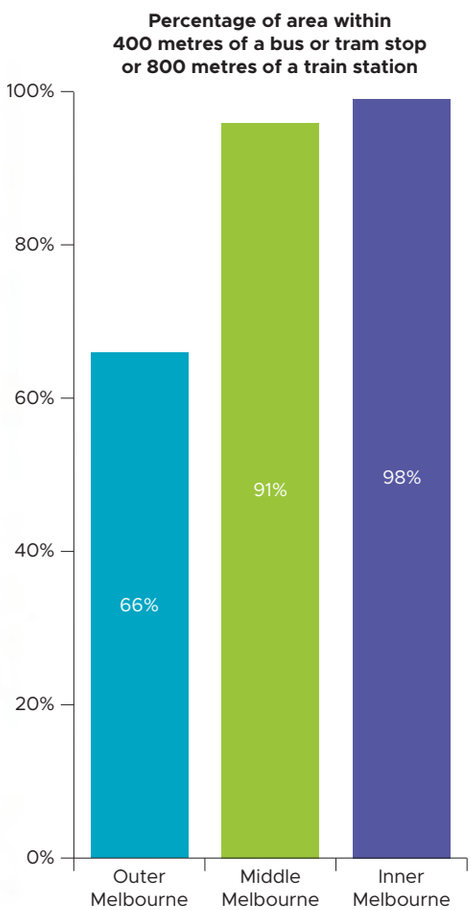
F *Annual Melbourne population growth by region* ▼





D *Outer suburb, Melbourne* ▼

G *Bus, tram and train access by area of Melbourne, 2012* ▼

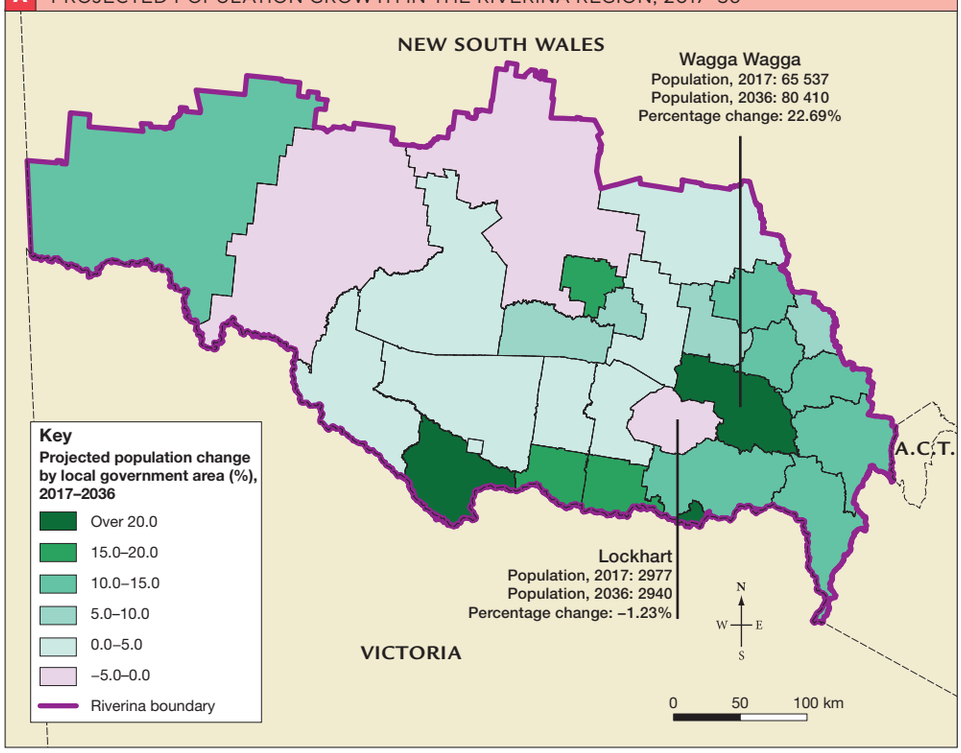


Rural liveability

Wagga Wagga is a regional centre in the Riverina electoral region of NSW, which is forecast to have the highest population growth in the region from 2017 to 2036 A. Regional centres, like Wagga Wagga, offer a change in lifestyle and opportunity for people moving away from urban places while also offering a range of employment opportunities. The continued growth of a regional centre is directly linked to the services that are available there C D.

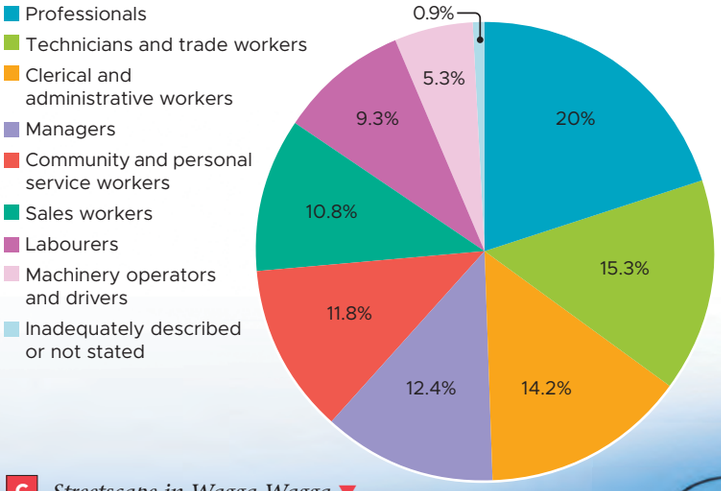
Regional centres can maintain and grow their population when a diverse range of employment opportunities and services are offered B. This growth can impact surrounding towns as their populations move to live in regional centres due to the availability of jobs, education or services.

A PROJECTED POPULATION GROWTH IN THE RIVERINA REGION, 2017–36



Source: Australian Bureau of Statistics / .id — the population experts

B *Occupations in Wagga Wagga, 2011* ▼



C *Streetscape in Wagga Wagga* ▼

D *Marketplace in Wagga Wagga* ▼

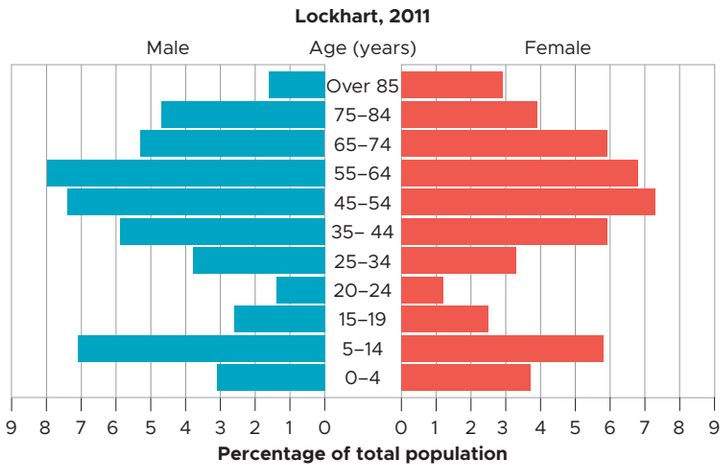


To further strengthen regional centres in New South Wales, seven regional centres have come together to create a campaign to attract more people to move to these areas. The towns of Wagga Wagga, Dubbo, Armidale, Albury, Bathurst, Orange and Tamworth are all part of the Evocities campaign. The Evocities campaign promotes regional centres as places that enhance liveability.

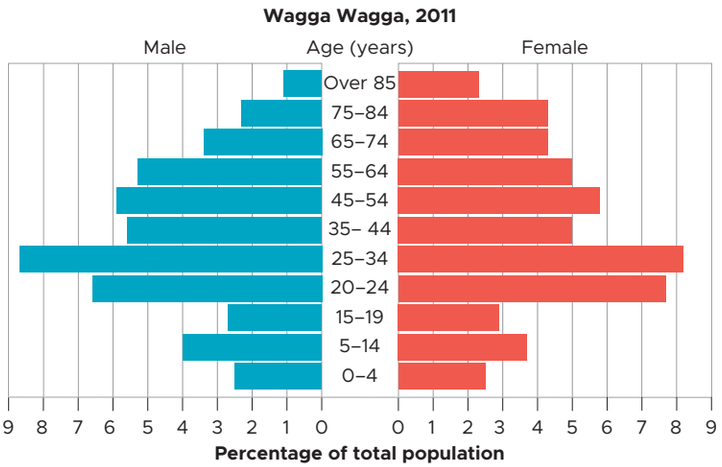
Lockhart, located to the west of Wagga Wagga **A**, is a town that is experiencing a forecasted decline in population of –1.23 per cent between 2017 and 2036. A key factor in the decline of Lockhart has been the growth of services available in Wagga Wagga. Historically, many rural towns were based around agriculture, which supported the employment and economy of the town. However, through technological advancements, many jobs have been replaced by machinery. Lockhart, as a town, is still heavily reliant on the agriculture sector for employment **E**, and, as a result, many people seeking work and services, such as shops **H**, have moved away to other centres, like Wagga Wagga.

Through the analysis of population pyramids **F** **G**, future population pressures can be examined both in towns in rural decline and in regional centres.

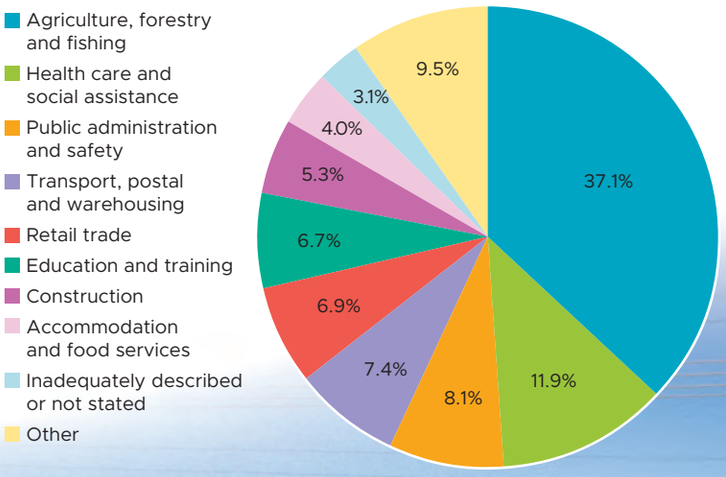
F *Population pyramid of Lockhart, 2011* ▼



G *Population pyramid of Wagga Wagga, 2011* ▼



E *Main employment industries in Lockhart, 2011* ▼



H *Shops in Lockhart* ▼



Europe

Liveability is a term used to estimate the qualities of a place using a range of characteristics such as access to healthcare, weather and climate, and transport facilities. The Quality of Life Index for 64 European cities **A** was compiled using a wide range of characteristics: purchasing power of income, safety, healthcare, cost of living, the cost of property in relation to income, time taken to get to work, school or shops, and important factors of pollution and climate. The top eight cities ranked around twice the level of the bottom ranked ones.

A significant factor affecting personal and community liveability is the level of unemployment. Among young Europeans aged 15 to 24, the proportion is alarmingly high **B**, affecting spending on food and housing as well as levels of happiness and social cohesion. It is a problem area of population that governments, planners and sociologists are concerned about and aim to reduce.

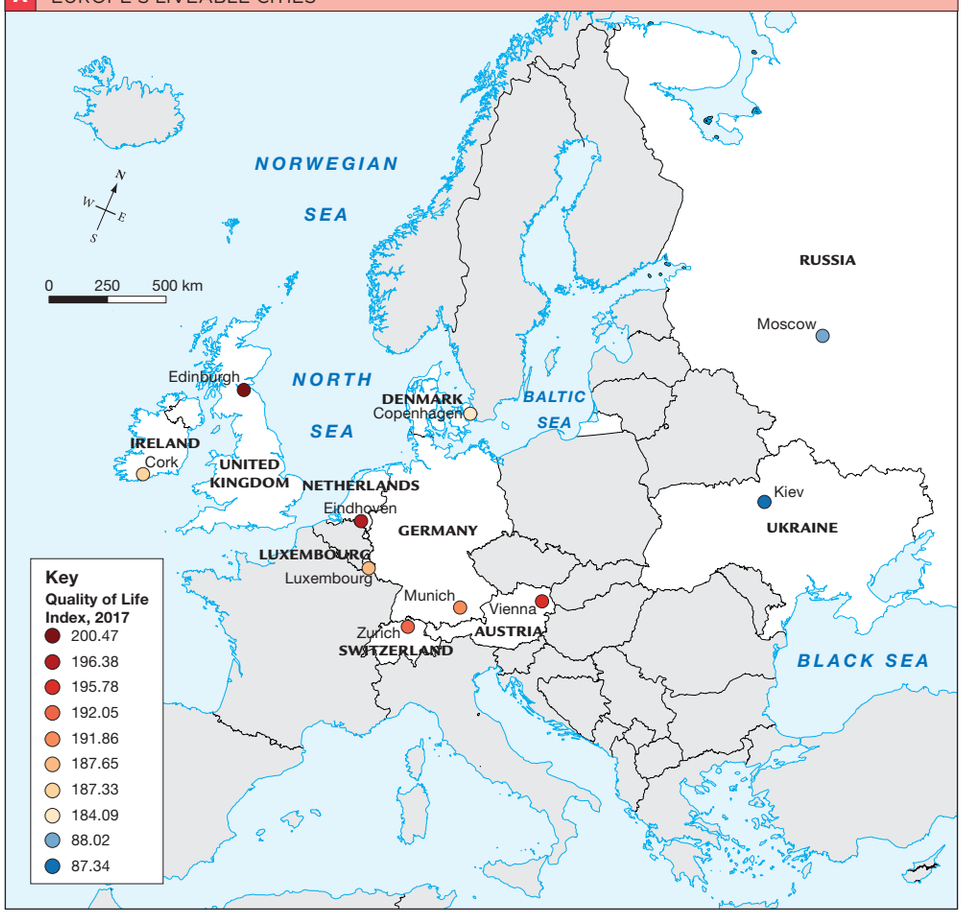
Germany's refugees: strategies to improve liveability

In 2015 and 2016, Germany accepted a total of 1.1 million migrants, mostly refugees from war-torn Syria, Afghanistan and Iraq, as well as from economically depressed regions including Eritrea, Albania and Kosovo. These migrants had made conscious decisions to improve the liveability of their environment by moving into an economically wealthy area with effective social services and high levels of safety. The German government welcomed these arrivals in a humanitarian act and with an eye to their future contributions to the German economy and society.

C *Protests erupt in Madrid (Spain) over economic conditions.* ▼

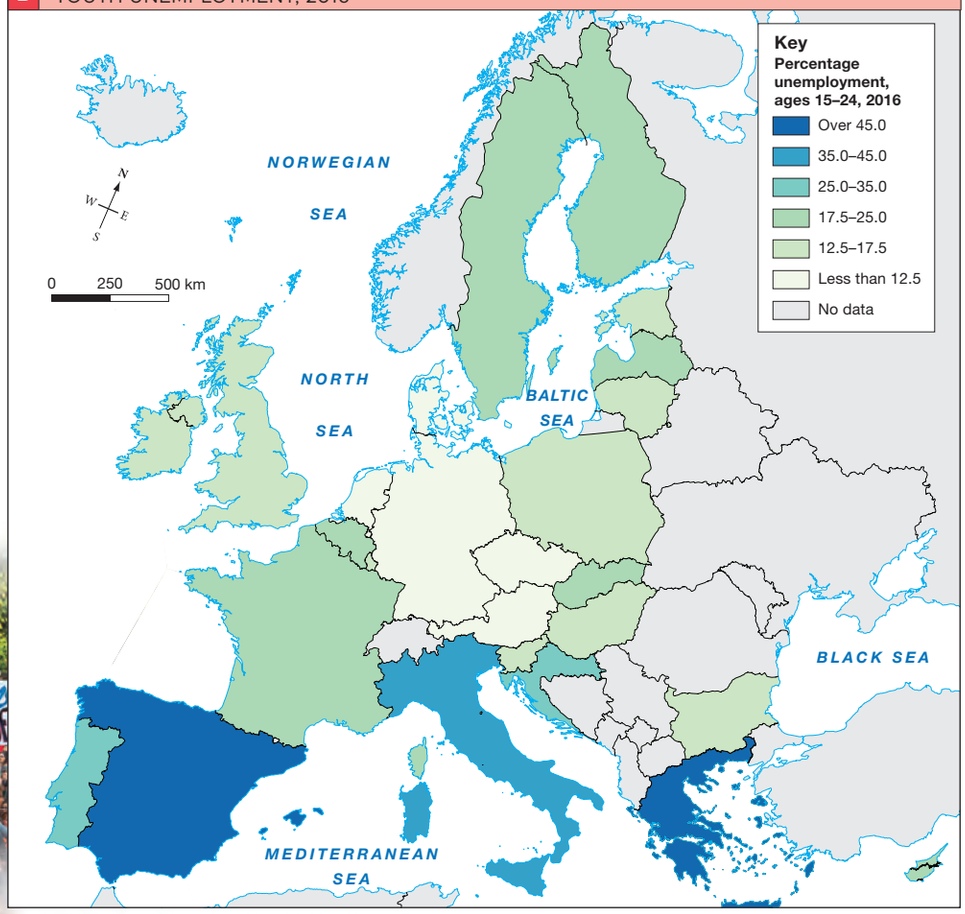


A EUROPE'S LIVEABLE CITIES



Source: Numbeo

B YOUTH UNEMPLOYMENT, 2016

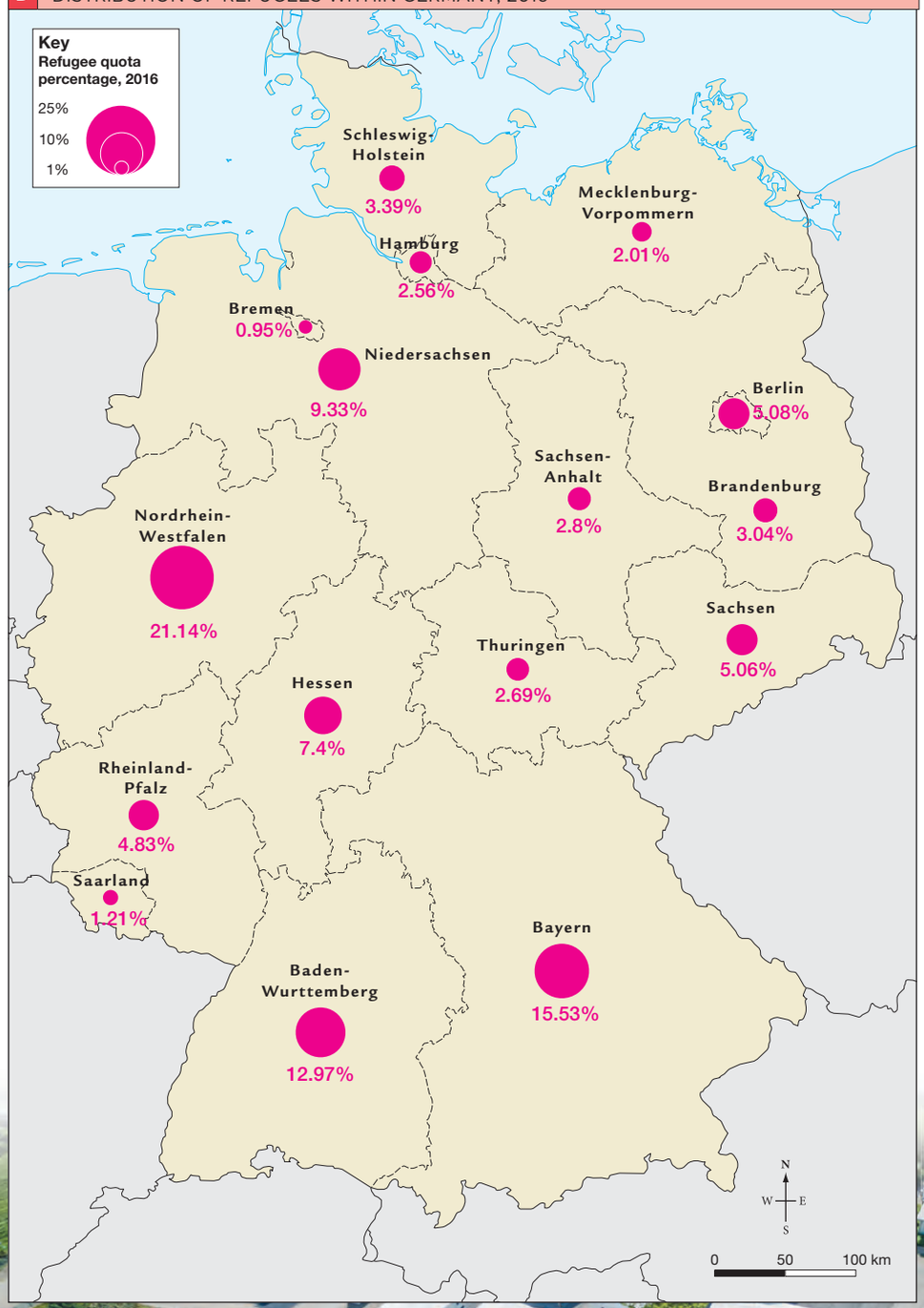


Source: © European Union, 1995–2017 / © 2017 Natural Earth

The strategies taken to improve the immediate and long-term liveability for these arrivals have been extensive. Registration and processing of claims for residency **G** have been followed by the distribution of the new arrivals throughout Germany according to the level of each state's tax revenues and total population **D**. German cities already have a sizeable proportion of people with a migrant background **E**. The aim has been to ensure a fair, equitable and efficient distribution, rather than see a concentration and potential burden emerge in one or two areas of the nation.

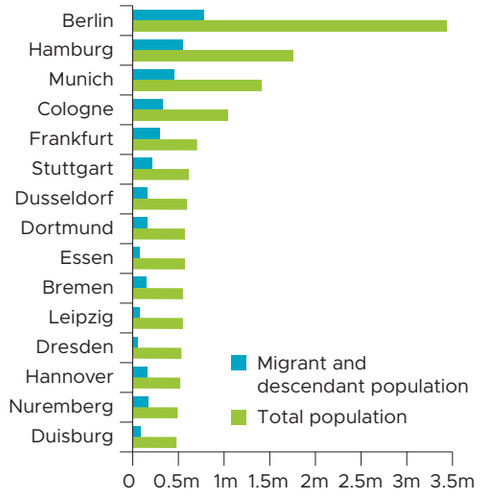
Many refugees have initially been housed in specially built accommodation where health checks and schooling — especially for learning German — can happen **H**. A range of strategies have then been put in place. These include job and integration fairs **F**, vocational training, reuniting with family members, and cultural education to ensure social cohesion within the country.

D DISTRIBUTION OF REFUGEES WITHIN GERMANY, 2016



Source: The Brookings Institute

E *People with migrant backgrounds in German cities* ▼



Source: Destatis

F *A jobs fair for new migrants in Hamburg, Germany* ▼



G *New arrivals register with authorities* ▼



H *A new tent city for refugees at Kamp-Lintfort* ▼





World

A *Part of the extensive mountain range that separates Nepal from Tibet (China)* ▼



B *Plains drained by rivers are found on all continents except Antarctica.* ▼



C *The world's coastal regions include offshore islands and sandy beaches.* ▼



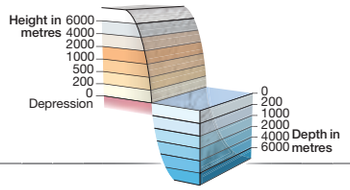




Source: NOAA National Environmental Satellite, Data, and Information Service NESDIS

Key

River | Lake | Dry lake | *Mt. Everest 8848 m* ▲ Mountain



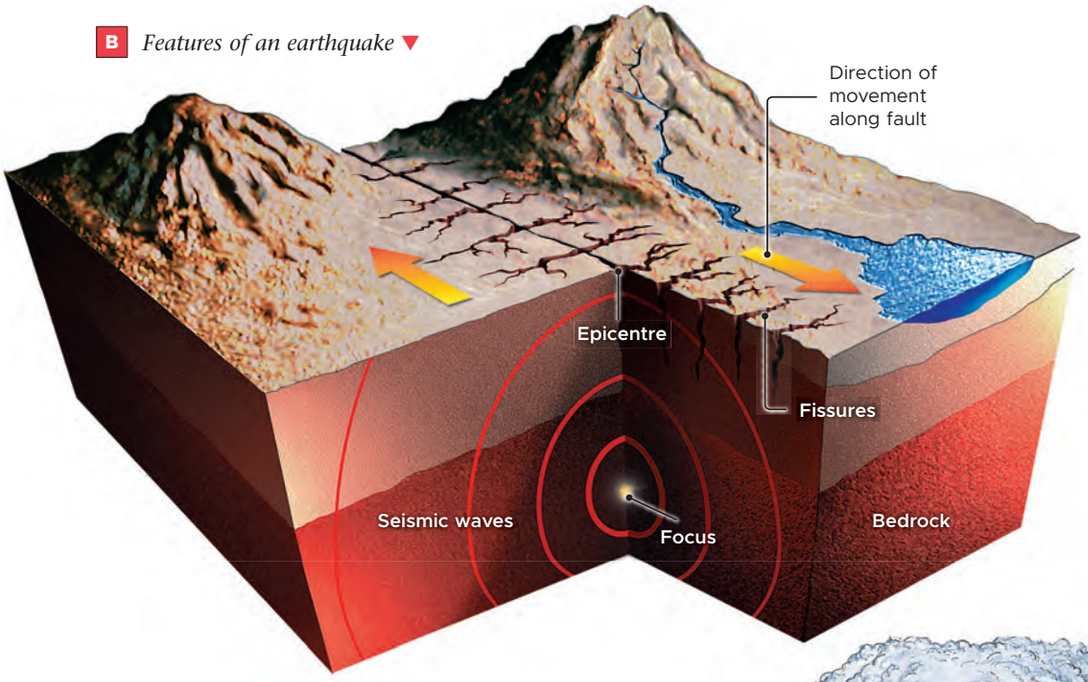
Tectonic plates

The Earth's thin crust is made up of a series of plates that are forced to move because of convection currents in molten magma beneath the crust D. By moving on average a few centimetres a year, these tectonic plates are responsible for many of the world's landforms. Where plates move towards each other D, collisions occur resulting in earthquakes B, volcanoes C, strings of volcanic islands and mountain ranges A. Where the plates are being forced apart by the convection currents D new crust, mid-ocean mountain ridges and volcanic islands A are formed.

Earthquakes

Earthquakes are the release of stresses in the Earth's crust that build up because of the movement of the plates. Earthquakes always have an epicentre—the point on the Earth's surface from which shock waves radiate. The epicentre is directly above the focus B—the area within the crust where the stresses that result in the earthquake have built up.

B *Features of an earthquake* ▼



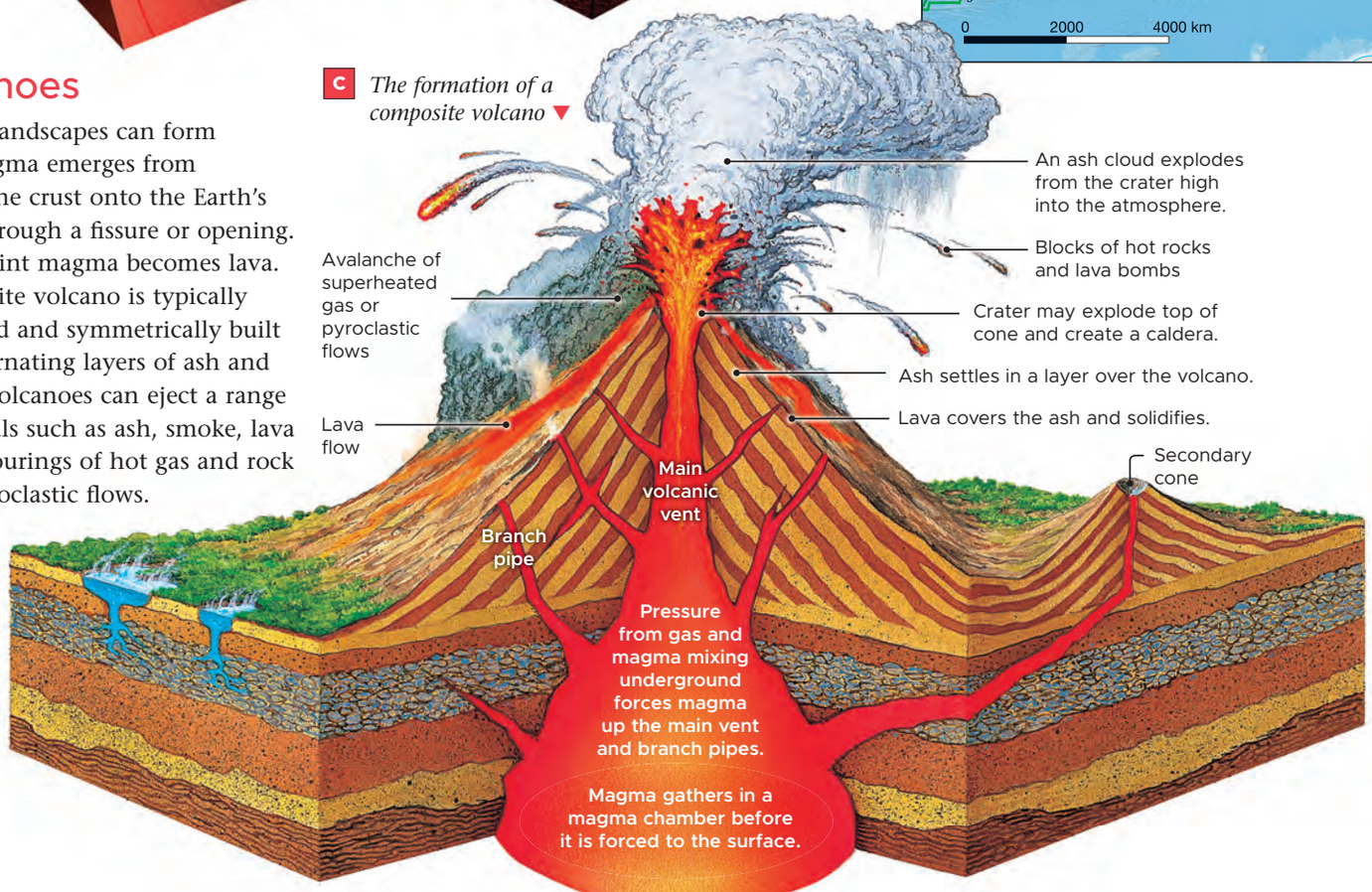
A THE WORLD'S TECTONIC PLATES

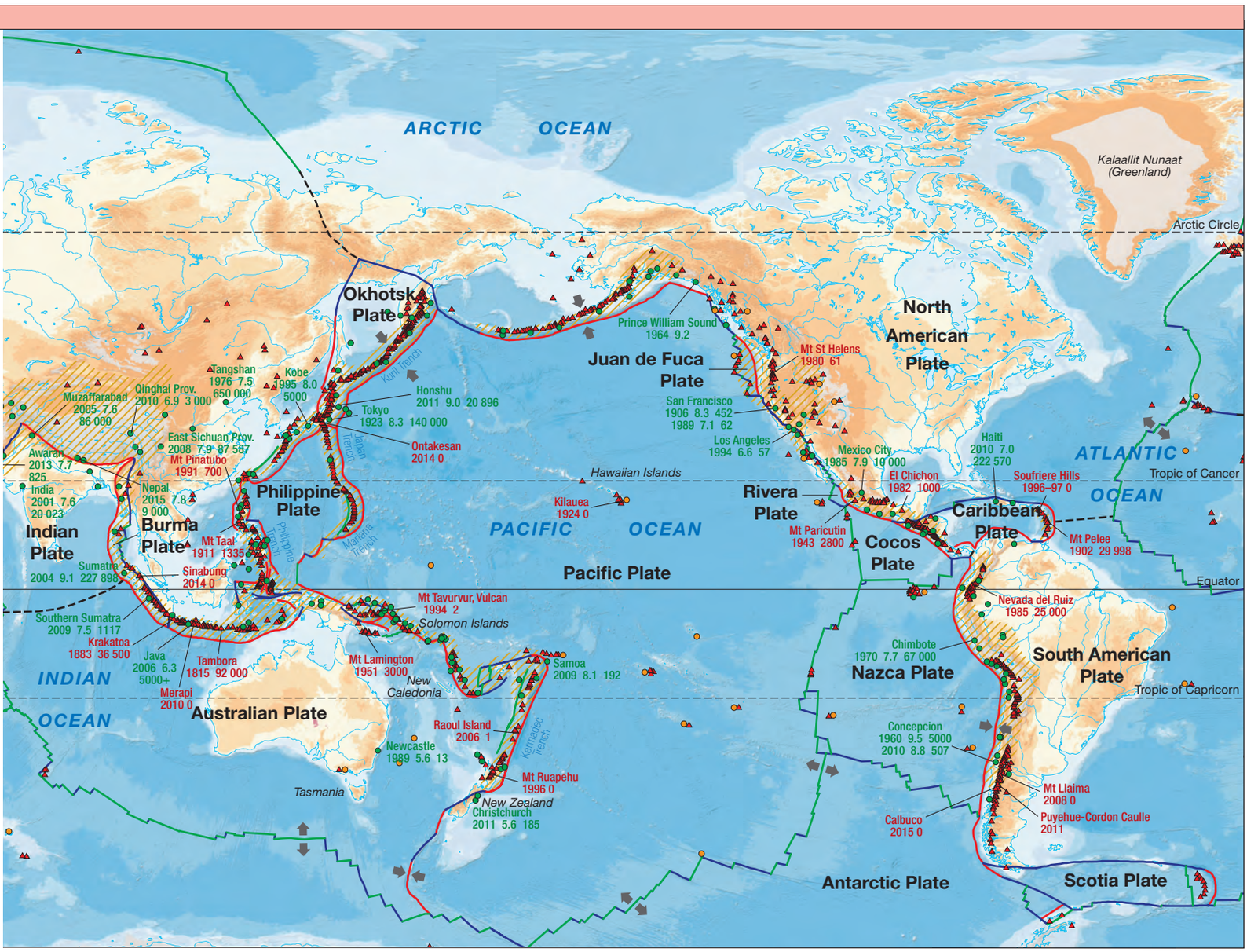


Volcanoes

Volcanic landscapes can form when magma emerges from beneath the crust onto the Earth's surface through a fissure or opening. At this point magma becomes lava. A composite volcano is typically steep-sided and symmetrically built up of alternating layers of ash and lava C. Volcanoes can eject a range of materials such as ash, smoke, lava and outpourings of hot gas and rock called pyroclastic flows.

C *The formation of a composite volcano* ▼

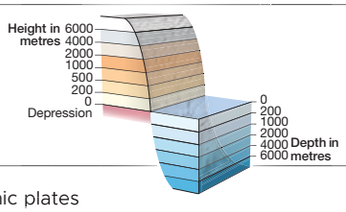




Source: Redrawn by Spatial Vision based on information from the Smithsonian National Museum of Natural History

Key

- Converging plate boundary
- Diverging plate boundary
- Transform plate boundary
- Uncertain plate boundary
- Movement of plate
- Volcano
- Krakatoa 1883 36 500 — Eruption with date, deaths
- Earthquake
- Newcastle 1989 5.6 13 — Earthquake with date, magnitude, deaths
- Hotspot
- Earthquake zone
- Cocos Plate — Plate name



D *Tectonic plate movements*

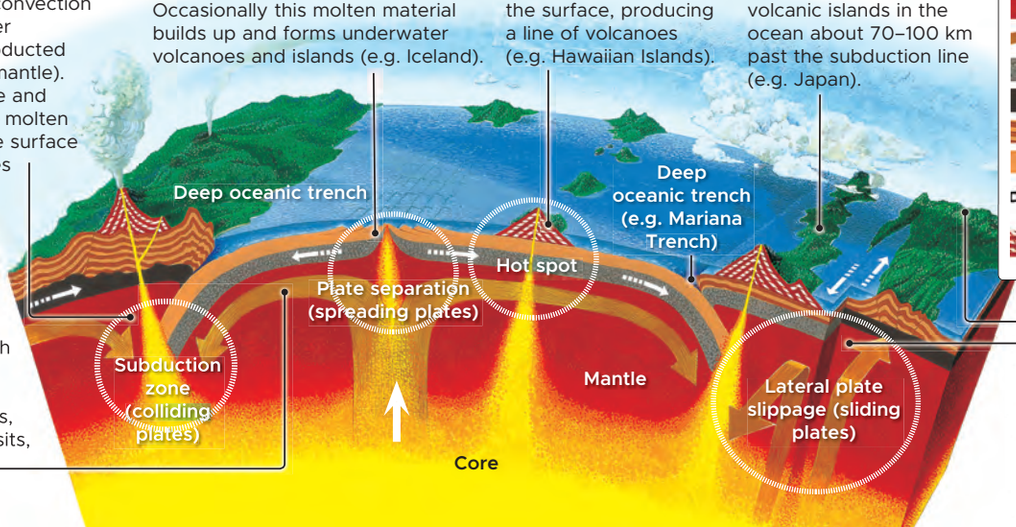
A continental plate and an oceanic plate move towards each other due to convection currents. The thinner oceanic plate is subducted (forced down into mantle). Heat melts the plate and pressure forces the molten material back to the surface producing volcanoes and fold mountains (e.g. Andes).

Convection currents, created by internal heating at the Earth's core, move slowly through the mantle (about 2–5 cm each year). They take the plates, on which the crust sits, with them.

A mid-oceanic ridge is created as magma from the mantle escapes along the line of plate separation (e.g. Mid-Atlantic Ridge). Occasionally this molten material builds up and forms underwater volcanoes and islands (e.g. Iceland).

Hot spots occur where weaknesses in the oceanic plate allow magma to be forced to the surface, producing a line of volcanoes (e.g. Hawaiian Islands).

Two oceanic plates move towards each other—one is subducted. This creates a line of volcanic islands in the ocean about 70–100 km past the subduction line (e.g. Japan).



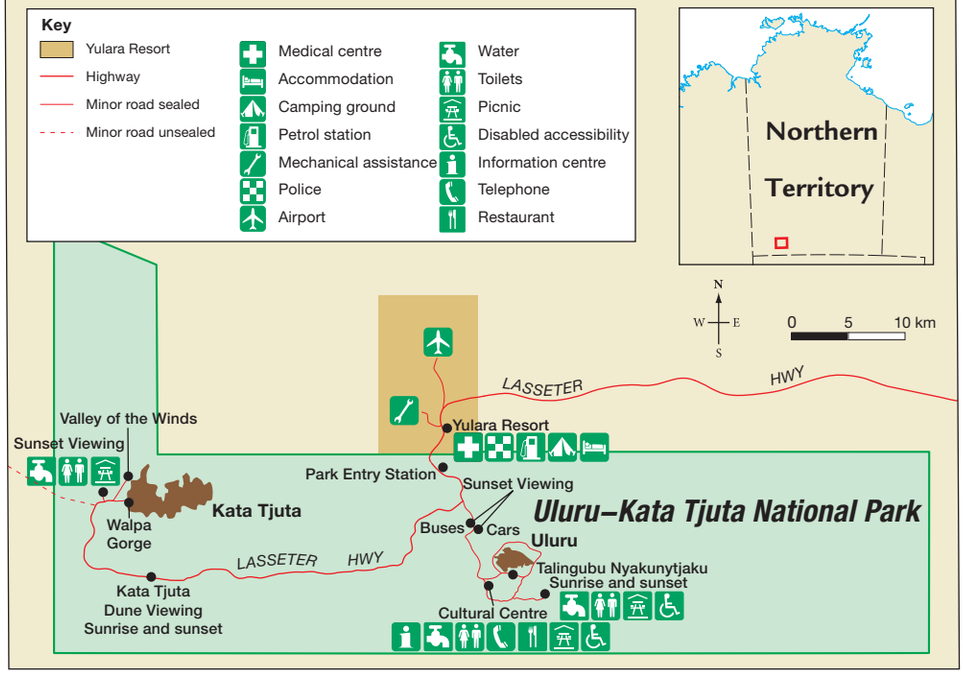
Lateral plate slippage is caused by convection currents. Earthquakes result from one plate sliding past another (e.g. San Andreas Fault).

Uluru

Uluru is an iconic location in Australia, popular with tourists B C. To the local traditional owners of Uluru, the Anangu people, the physical features of the landscape are evidence of where sacred spirits moved across the land making Uluru an important sacred site D E F.

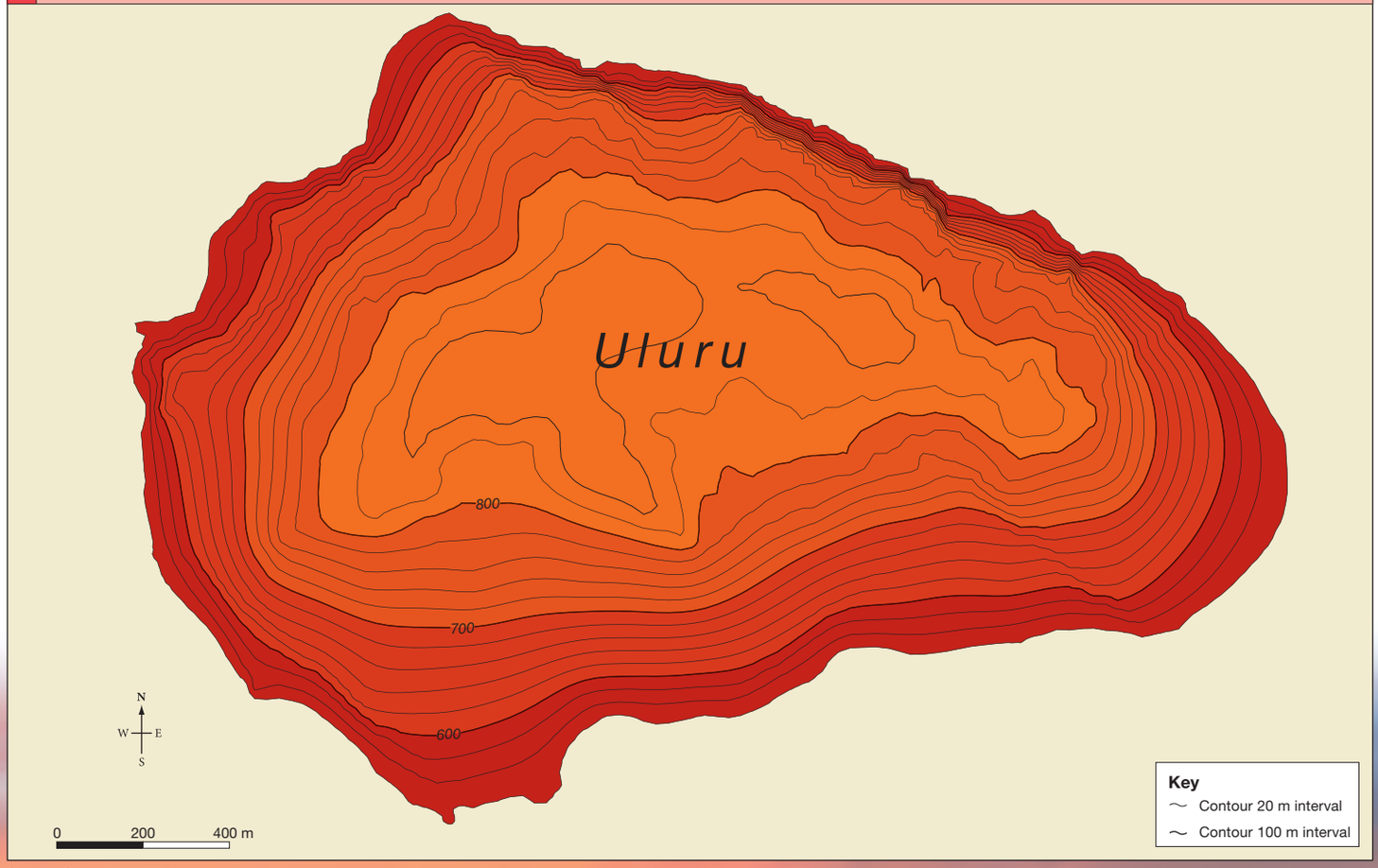
Uluru-Kata Tjuta National Park A is located in the Northern Territory approximately 470 kilometres south-west of Alice Springs. Uluru has been managed as a national park since 1950 and was handed back to the local Anangu people in 1985. Since then, the Anangu and Parks Australia staff have worked together to manage the park using both scientific and Aboriginal knowledge to make decisions on how best to look after the area.

A THE LOCATION OF ULURU-KATA TJUTA NATIONAL PARK



Source: Geoscience Australia / Parks Australia

B TOPOGRAPHIC MAP OF ULURU



Source: Geoscience Australia

C *Uluru at sunset* ▼



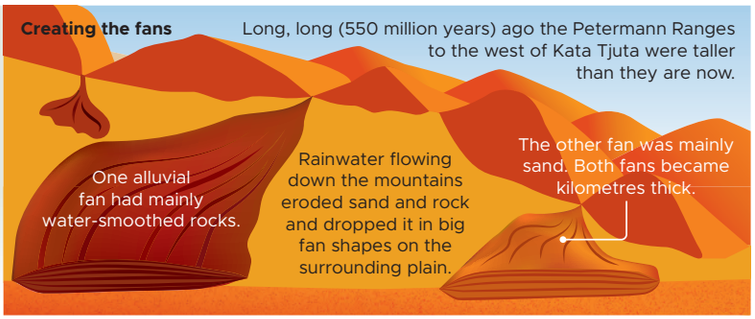
From the Dreaming

One Dreaming story tells of the Two Boys who created Uluru itself. The Two Boys were uninitiated boys travelling north-east from South Australia, hunting as they went. When they heard the sound of a Mala (hare-wallaby) ceremony, they were curious and wanted to see what was happening. When the Two Boys reached the waterhole and found the Mala had gone, they began to play in the water. They mixed the water with earth until it became mud and began shaping it into a pile. The pile grew bigger and bigger as the Two Boys added more and more mud until it was the size that Uluru is now.

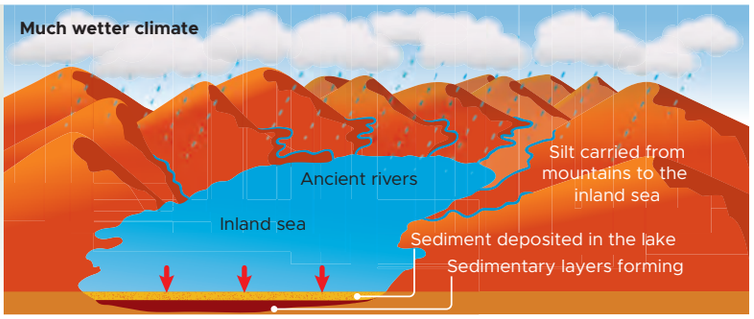
Then they began to use the pile as a slide, climbing to the top and sliding down on their stomachs creating long, deep channels as they went. As the mud hardened into rock, the channels became the deep gullies still visible on the southern side of Uluru today.

D *The processes that formed Uluru* ▼

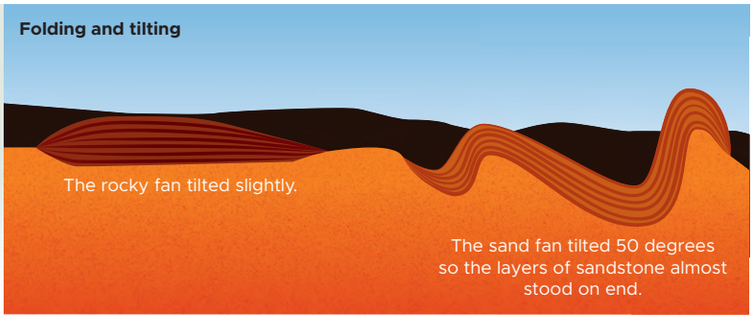
1. 550 million years ago, Australia was much wetter. Rainwater flowing down the mountain ranges formed rivers that eroded sand and rock. This material was then deposited into fan shapes on the surrounding plains.



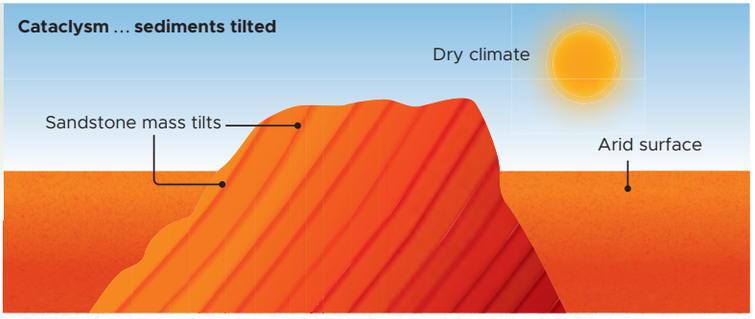
2. 500 million years ago, the area became covered by an inland sea. Rivers transported sand to the bottom of the sea where it was deposited and eventually formed sandstone.



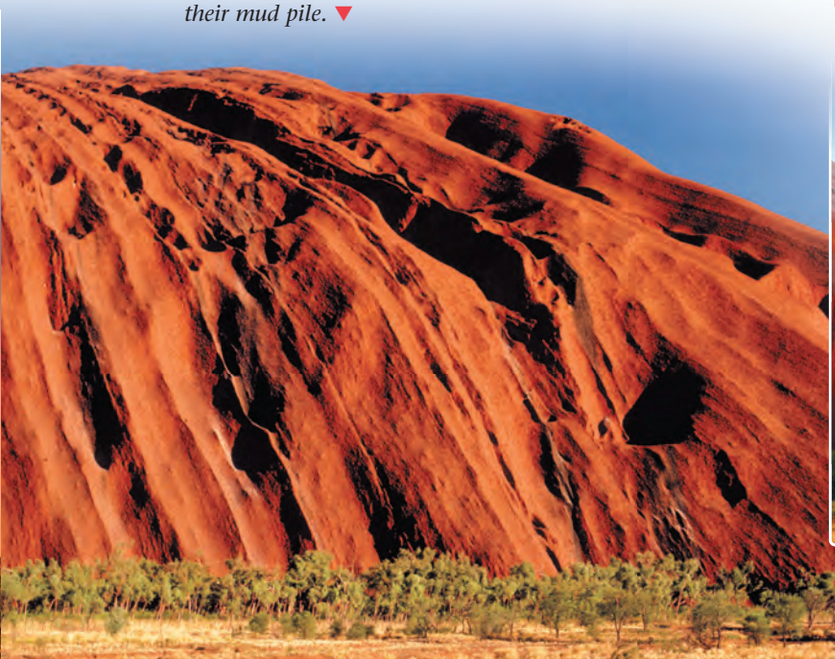
3. About 400 million years ago, the climate changed from wet to dry. Massive forces tilted the sandstone that forms Uluru so that the layers of sandstone became almost vertical.



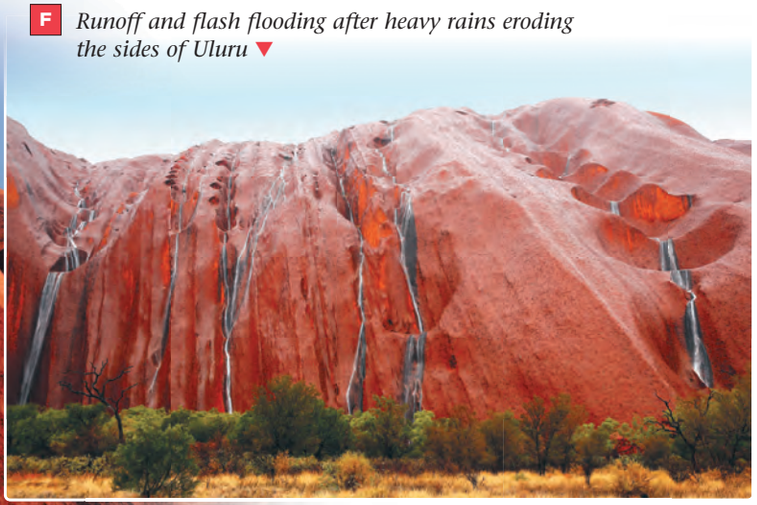
4. Over the last 300 million years, the softer rocks have eroded away. This exposed the sandstone of Uluru. The geological name for this landform is an inselberg.



E *According to Aboriginal ancestral stories, these gullies in Uluru's side were formed by the Two Boys sliding down their mud pile.* ▼

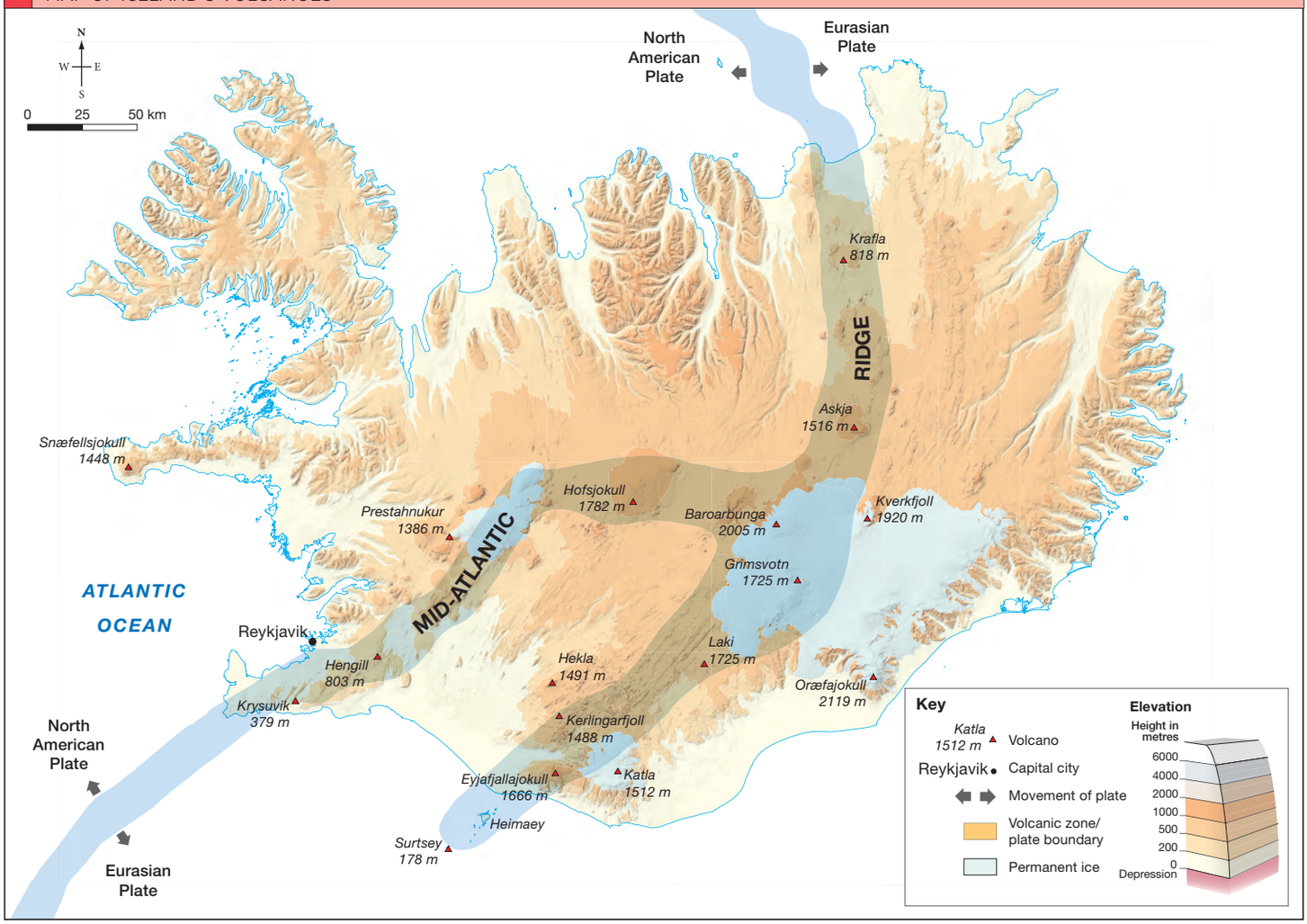


F *Runoff and flash flooding after heavy rains eroding the sides of Uluru* ▼



Iceland

A MAP OF ICELAND'S VOLCANOES



Source: Based on data from National Land Survey of Iceland

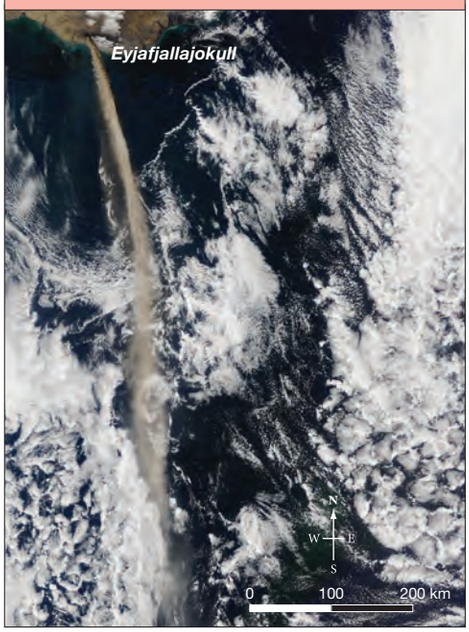
Iceland has a high concentration of volcanoes due to its position on the mid-Atlantic ridge, a divergent tectonic plate boundary **A**, where a chain of underwater volcanoes runs through the North Atlantic Ocean. Additionally, Iceland is located on a hotspot and the interaction between these two types of volcanism has resulted in the creation of Iceland over time, including the surrounding islands such as Surtsey **A**. Across its 103 000 km^2 of land, Iceland has 32 active volcanoes, which are responsible for a volcanic eruption every five years, on average. These eruptions have significant impacts on the people and environment within Iceland and around the world.

In March 2010, Eyjafjallajokull, an ice-capped stratovolcano, erupted. Continuous explosive activity in the summit lasted for 39 days, with the entire event spanning several months. The initial eruption led to the evacuation of 800 people living at the base of Eyjafjallajokull and subsequent explosions sent plumes of ash into the atmosphere **B**. Ash covered large areas of northern Europe and 20 countries closed their air spaces for nine consecutive days, affecting an estimated 10 million travellers.

The landscape of Heimaey, an island off the south coast of Iceland **C**, was altered by the volcanic eruption of Eldfell in 1973. The eruption lasted five months and the village, along with Iceland's main fishing port, was almost destroyed. To combat the encroaching lava flows, the people used 30 km of pipes, pumping water from the ocean at 1 cubic metre per second, to spray the lava. This helped to cool and solidify it, while diverting its flow. The effort from the people not only saved the village but made the island more liveable. The harbour became more protected and grew in size along with the island **D** and the thermal heat from the cooling lava was used to construct a district heating system.

The island of Surtsey appeared after a series of eruptions between 1963 and 1967. Surtsey stands 150 m above sea level and covers an area of three square kilometres.

B ASH CLOUD FROM EYJAFJALLAJOKULL TRAVELLING TOWARDS EUROPE



Source: NASA Earth Observatory

C TOPOGRAPHIC MAP OF HEIMAEY



Key

- *Eldfell 200 m* ▲ Volcano
- Populated area
- Road
- Contour
- Runway

Land created in 1973 by Eldfell eruption

- January 25
- January 29
- Febuary 7
- March 12

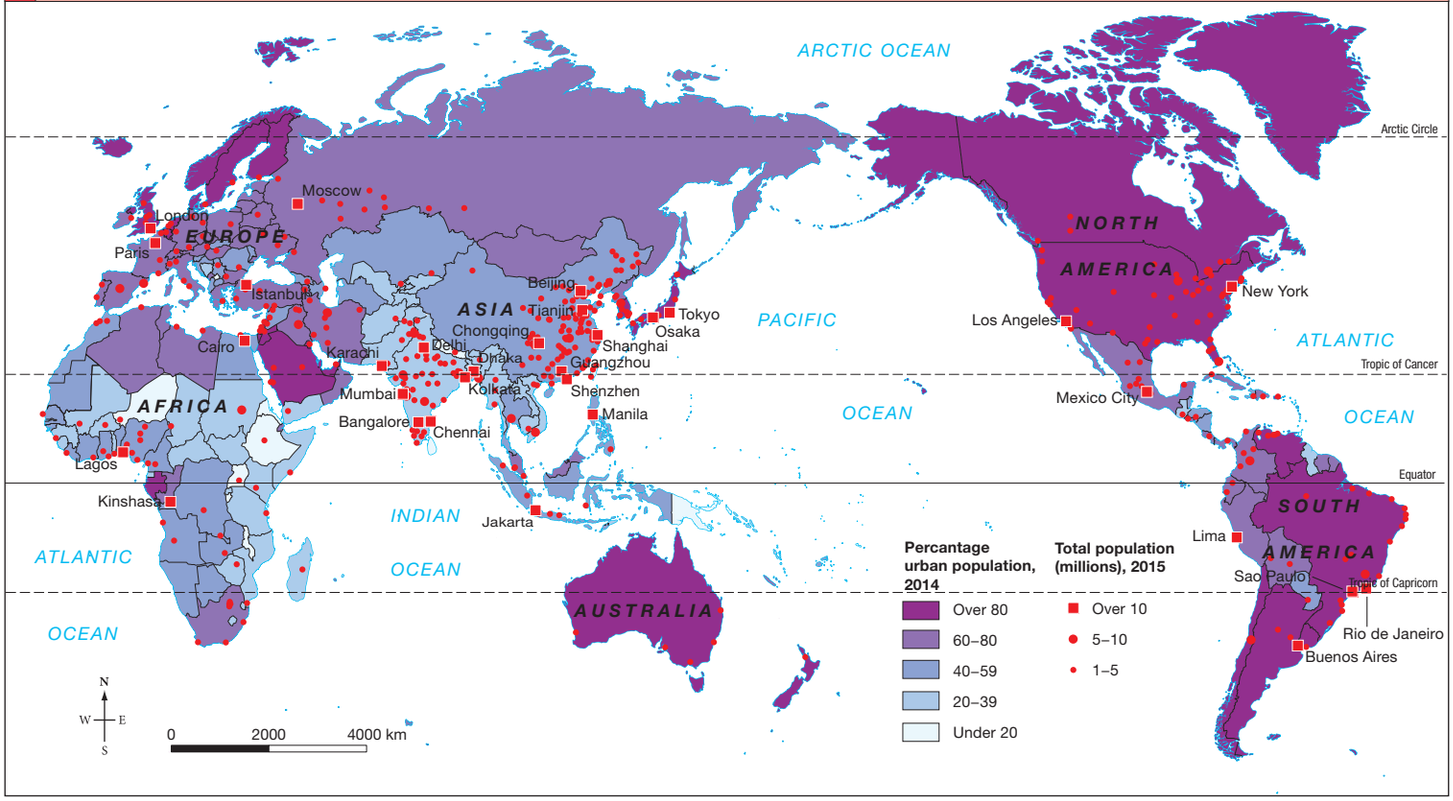
D *A view of the extent of the lava flow from Eldfell on Heimaey* ▼



Source: Based on data from National Land Survey of Iceland

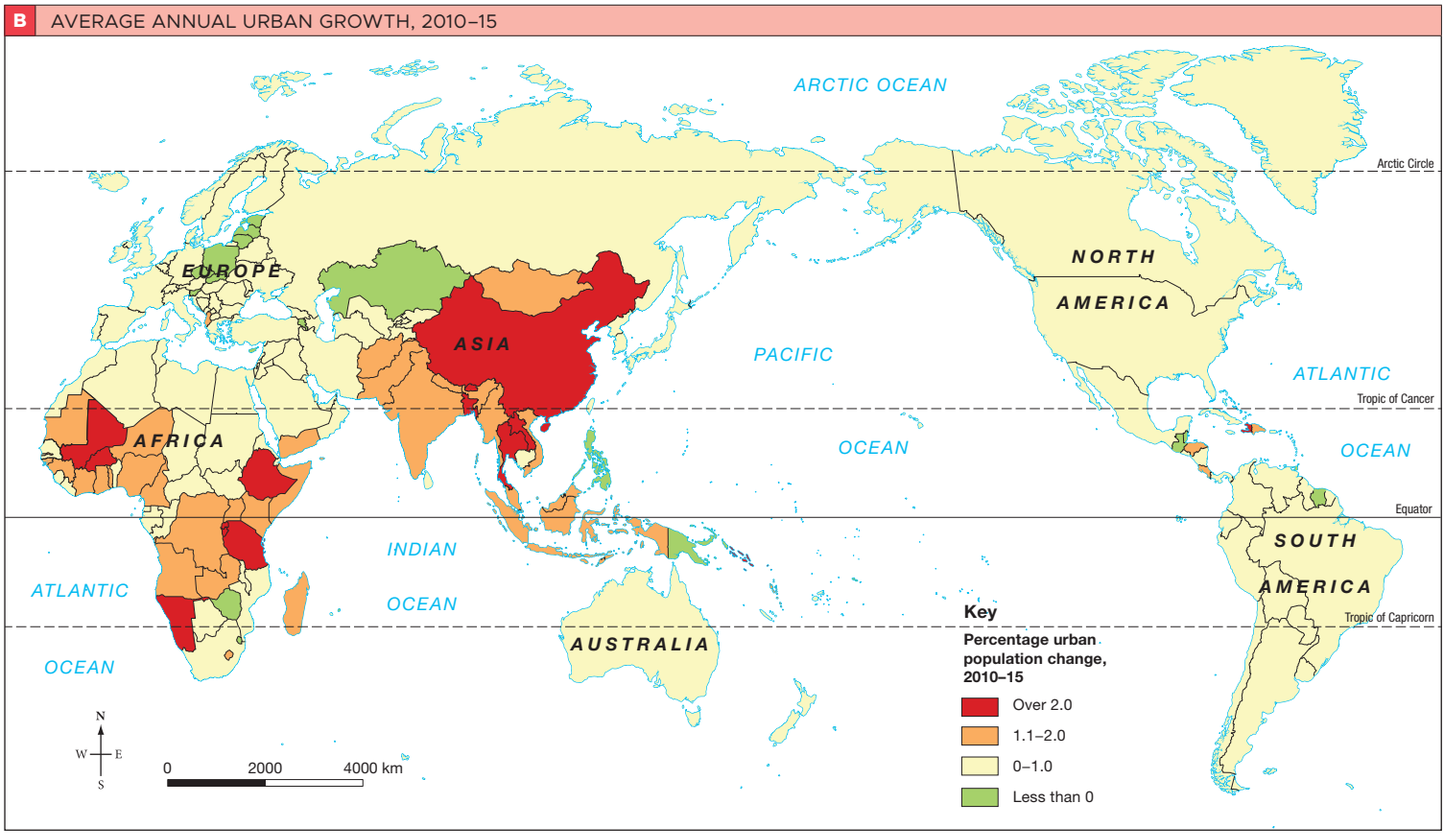
World urbanisation

A WORLD URBANISATION, 2014



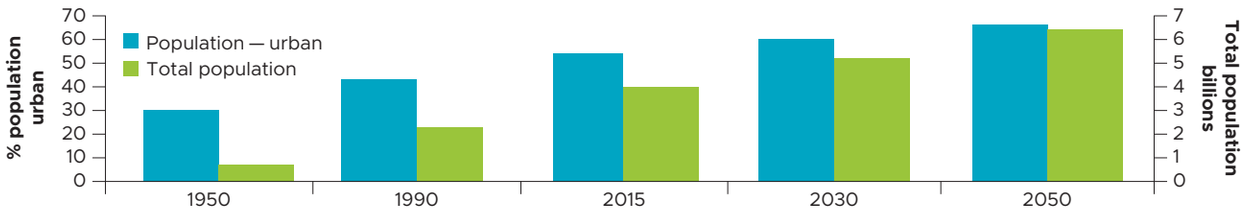
Source: © 2017 The World Bank Group

B AVERAGE ANNUAL URBAN GROWTH, 2010–15



Source: © 2017 The World Bank Group

C *World urban percentage and population* ▶

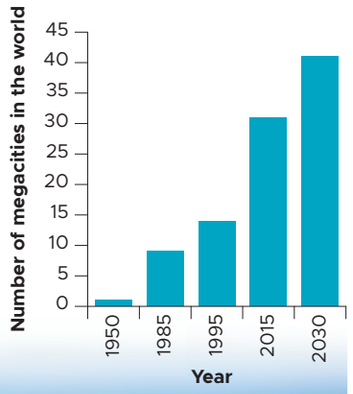


Megacities

Over 54 per cent of the world's population now live in towns and cities. As a result, there has been a rapid growth in the number and population of cities. The largest of these are megacities with over 10 million inhabitants. By 2017, there were 31 megacities in the world, including Tokyo–Yokohama (35 million people) E, Delhi (26 million) and Shanghai (24 million).

These large urban areas are the economic powerhouses for their regions and other parts of the world, attracting trade and investment and creating jobs. Future megacities will emerge in developing regions of Asia and Africa, rather than in Europe or North America.

D *Growing megacities* ▼



Informal settlements

Throughout the developing world, urban populations are rapidly growing. Cities offer people the best chances for improving their wellbeing. In 2016, over 30 per cent of Asia's urban population lived in informal settlements, often called slums or shanties.

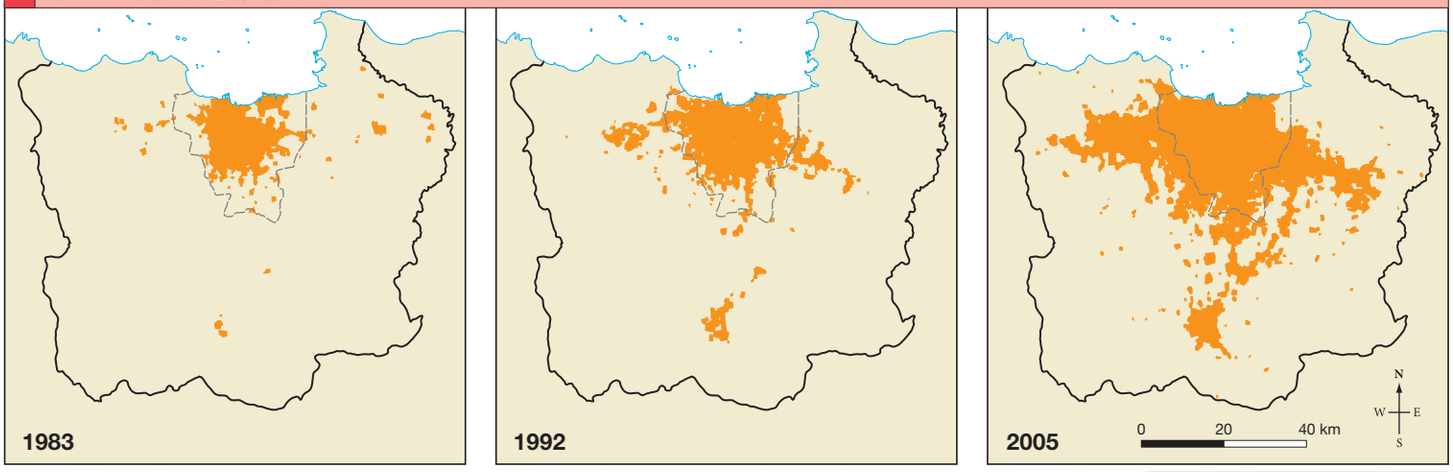
The residents of informal settlements usually do not own the land their makeshift housing is built on and authorities could remove them at any time. Most people are cut off from the basic services of water, sanitation, electricity, education, policing and public transport.

Jakarta in Indonesia is one of Asia's fastest growing cities F. In 2017, its central urban core housed around 11 million people, but the wider metropolitan area included 28 million — and is still growing from natural increase, and migration from other cities and rural areas. Currently 50 per cent of residents live in substandard housing G.

E *Part of the world's largest megacity, Tokyo–Yokohama* ▼



F JAKARTA'S RAPID GROWTH



Source: Redrawn by Spatial Vision based on information from Crawford School of Public Policy, Australian National University

G *Part of Jakarta's substandard housing* ▼



Australia and USA settlement patterns

Australia

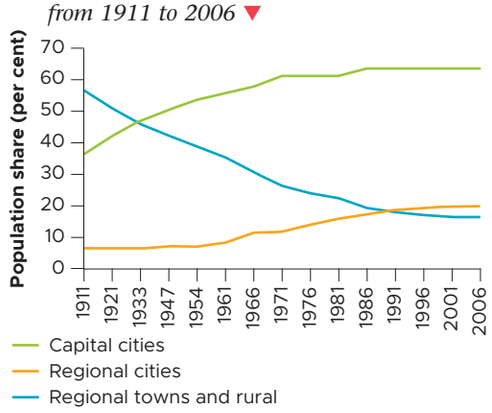
This series of maps C D E shows how population along the east coast of Australia dominates the distribution. The capital cities of the five mainland states are not included, as their size would overshadow the other data. In 1911, there were only a few regional centres (larger non-metropolitan towns), usually associated with a specific function, such as mining C. However, by 1961, there was an increase in regional centres, although small towns remained important D. By 2006, large regional cities dwarfed the smaller settlements, with many of the smaller inland towns disappearing E. Also, new towns appeared in the north and west of the country, such as Karratha and Katherine. Overall, Australia has seen increasing centralisation of population and a decline in rural inland towns and growth in coastal locations.

In 1911, the largest number of people lived in small rural towns and, to a less extent, capital cities, with very few people in large regional towns. However, by 2006, the number of people living in rural towns had declined, the population in regional cities had increased and the population of capital cities dominated B.

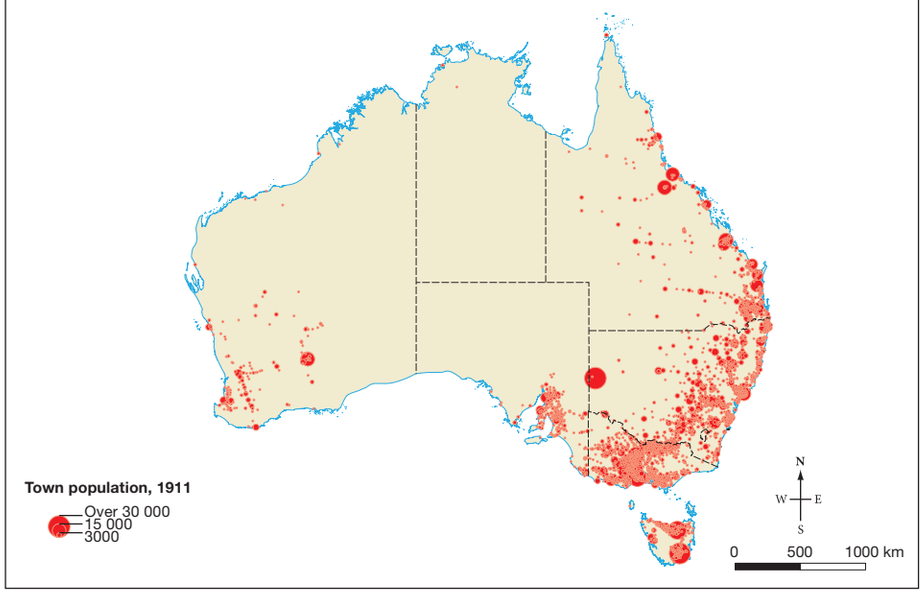
A *Geraldton in the 1960s* ▼



B *Population share by percentage for capital cities, regional cities and other regional, from 1911 to 2006* ▼

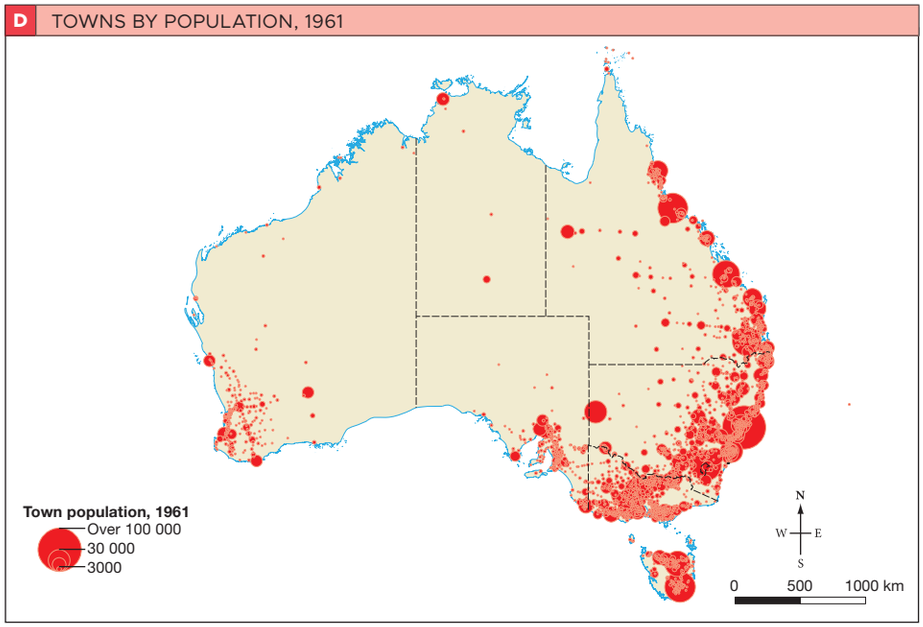


C TOWNS BY POPULATION, 1911



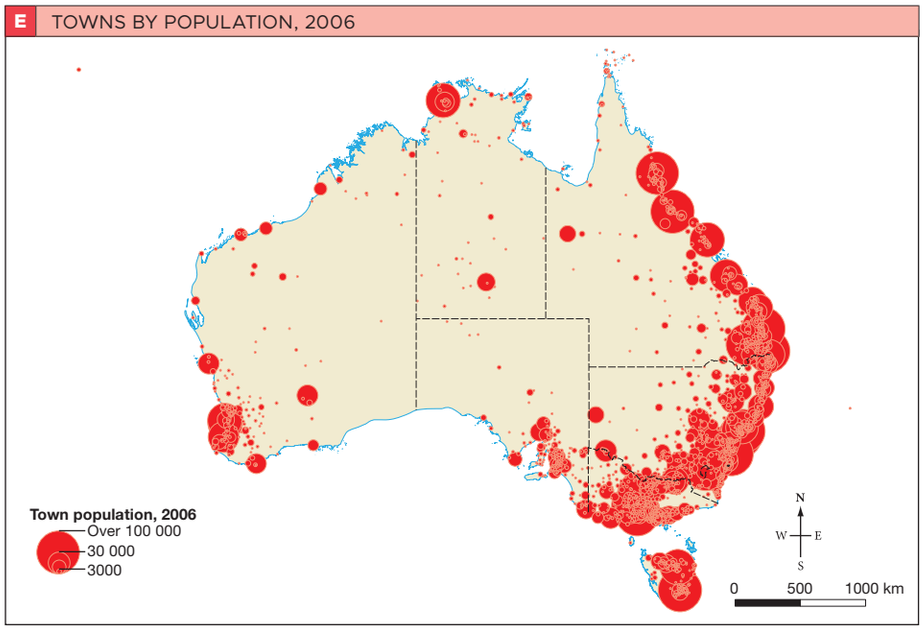
Source: Bureau of Infrastructure, Transport and Regional Economics (BITRE)

D TOWNS BY POPULATION, 1961



Source: Bureau of Infrastructure, Transport and Regional Economics (BITRE)

E TOWNS BY POPULATION, 2006



Source: Bureau of Infrastructure, Transport and Regional Economics (BITRE)

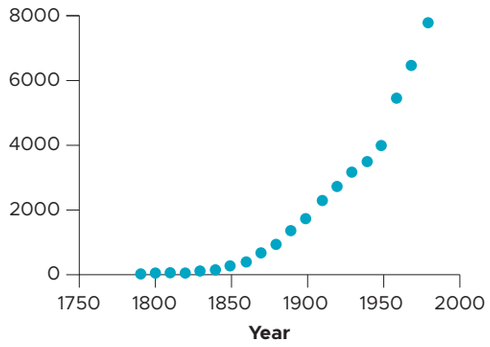
United States of America

Small towns grew after 1830 and this is where the majority of the population lived up to the 1900s F G H I J. It took until 1913 for the country to became predominantly urban. The growth of larger cities only really accelerates in the mid-1950s. In 1970, out of the 153 US cities with a population greater than 100 000, only 23 had existed at all at in 1800.

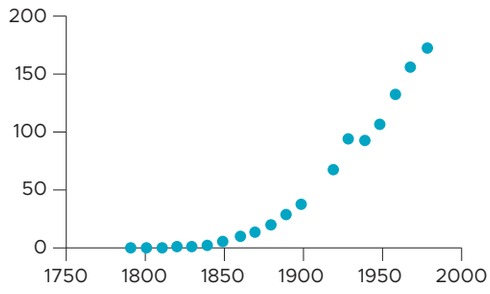
F *Baltimore 1830* ▼



G *Total number of US cities over 2500 inhabitants, 1790–1980* ▼

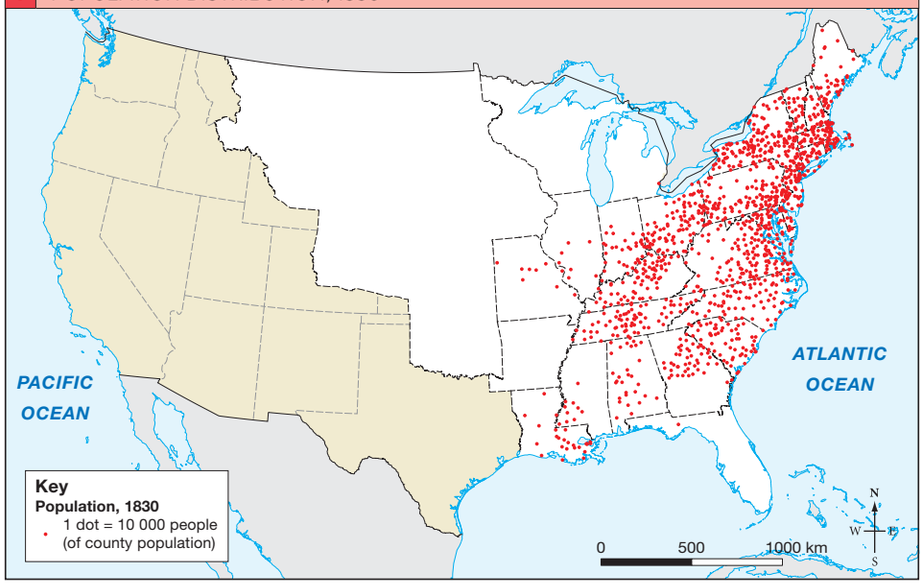


H *Total number of US cities over 100 000 inhabitants, 1790–1980* ▼



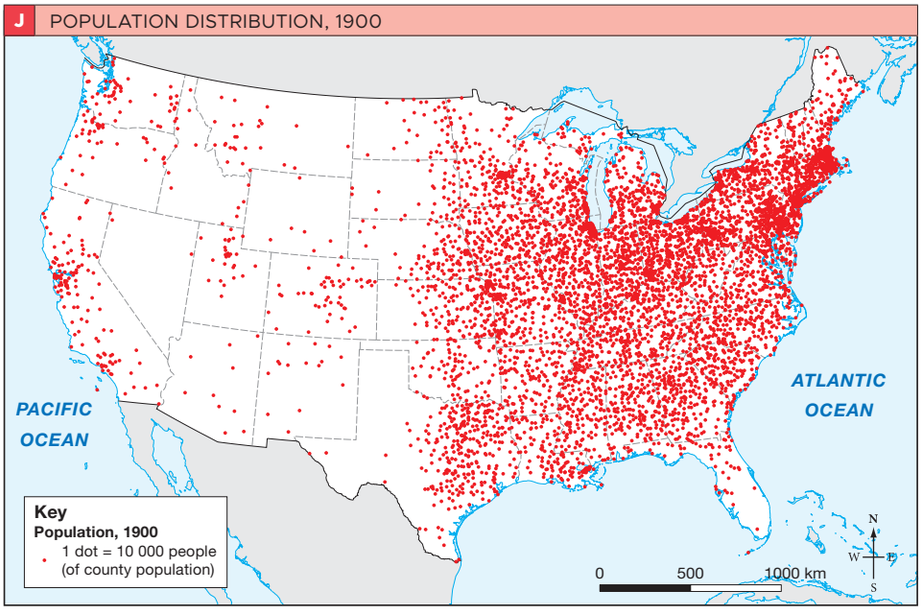
This series of maps I J K shows the westward spread of the US population between 1830 and 2010 and this pattern of urban growth can be linked to the history of colonisation and migration. By 1900, the eastern half of the country was evenly populated but the west was less populated except for a few clusters. By 2010, clusters of population had appeared in the east of the country and on the west coast.

I POPULATION DISTRIBUTION, 1830



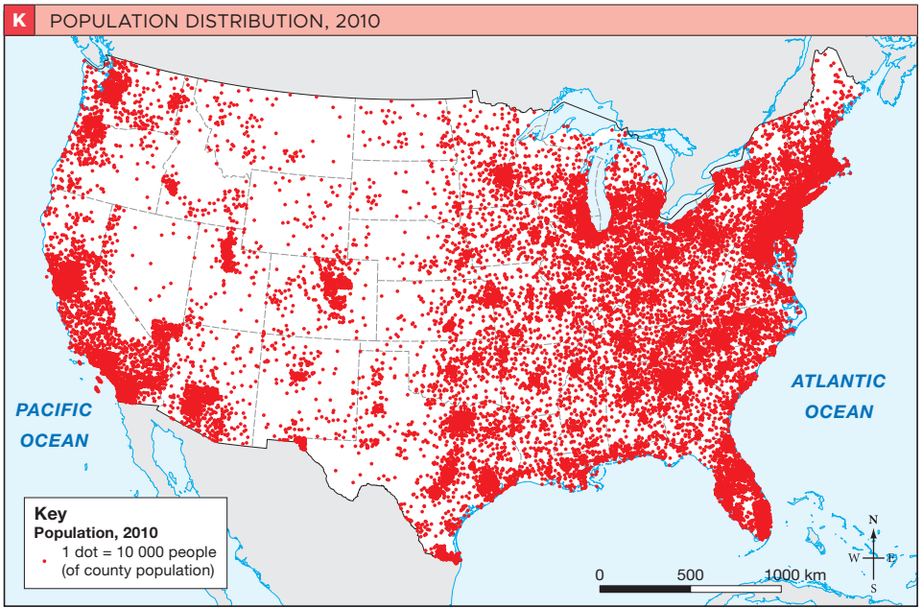
Source: Minnesota Population Center. National Historical Geographic Information System: Version 11.0 [Database]. Minneapolis: University of Minnesota. 2016. http://doi.org/10.18128/D050.V11.0.

J POPULATION DISTRIBUTION, 1900



Source: Minnesota Population Center. National Historical Geographic Information System: Version 11.0 [Database]. Minneapolis: University of Minnesota. 2016. http://doi.org/10.18128/D050.V11.0.

K POPULATION DISTRIBUTION, 2010



Source: Minnesota Population Center. National Historical Geographic Information System: Version 11.0 [Database]. Minneapolis: University of Minnesota. 2016. http://doi.org/10.18128/D050.V11.0.

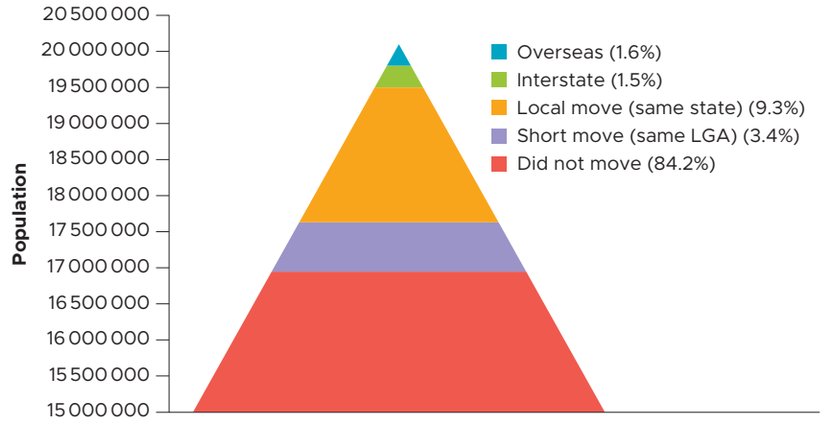
Internal migration, Australia

Many people move within Australia each year A for employment and opportunity B. The major cities have 66.7 per cent of the nation's population (23 775 000 in 2016) C D and in the five years to 2016, 80 per cent of population growth occurred in capital city areas, and 92 per cent in Sydney and Melbourne. In 2016, more than 350 000 people moved interstate. Melbourne gained an extra 17 200 people in 2016, an increase from 4500 in 2015 E. In all states, the highest inflows are among students and young workers F. The pull factors are employment, education and social preferences. Employment in Victoria rose by 97 000 in 2016, which was most of Australia's increase in jobs.

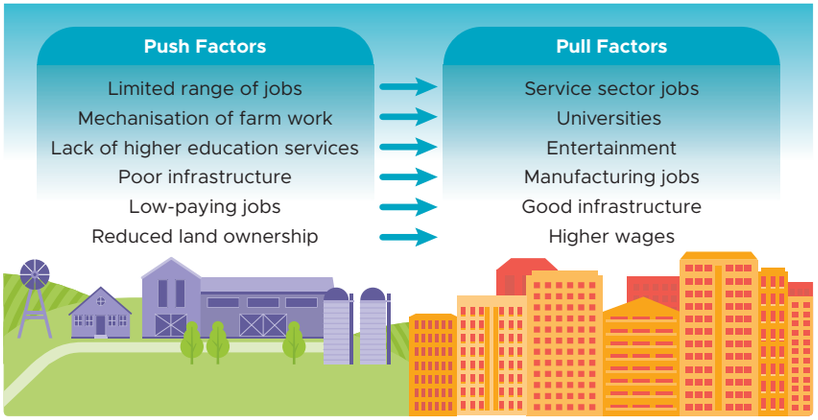
Out-migration from regional areas may create difficulties for the region which is left. Despite its best efforts to keep and attract young people, Avoca, a farming town in Central Victoria, is typical of many smaller towns in Australia. It has seen a marked decrease in younger people in the town G. It becomes a vicious circle; fewer people in younger age groups means fewer services, such as schools, which in turn reduces the population.

Regional areas closer to major cities are doing much better. Nearly 7 million people live in coastal areas adjacent to the major cities, and the population growth in those areas is almost 60 per cent higher than the national average I. Effective transport to the major centre is essential for this growth, such as from the Gold Coast to Brisbane. Sea change and tree change are not exclusively a retirement phenomenon, but 37 per cent of older Australians are making a move to areas such as the coast of Queensland or regional centres like Port Macquarie. This is often very successful H but longer-term observations show around 30 per cent return to the major centres. Increasing need for intensive services (such as hospitals), friends and family are the major reasons.

A *Proportion of population movements in 2011* ▼



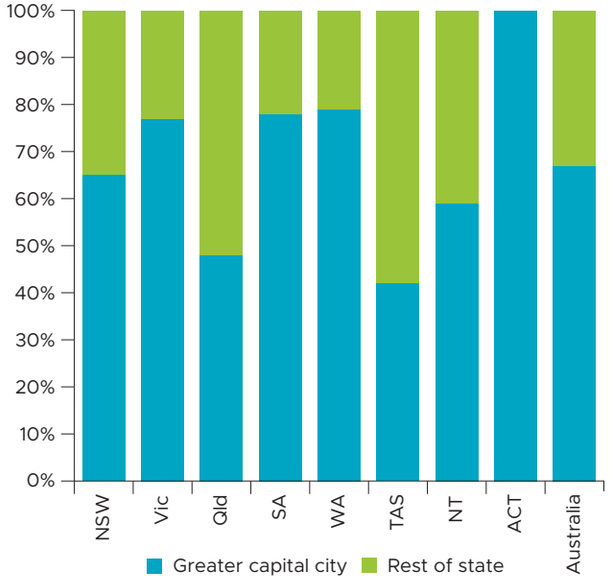
B *A variety of economic and social factors lead to internal migration.* ▼



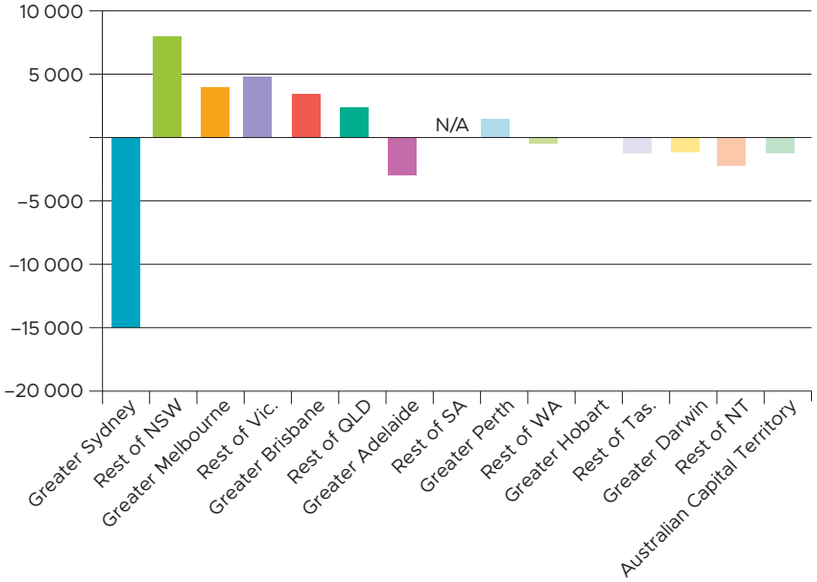
C *Our greater city areas are growing at a challenging rate.* ▼



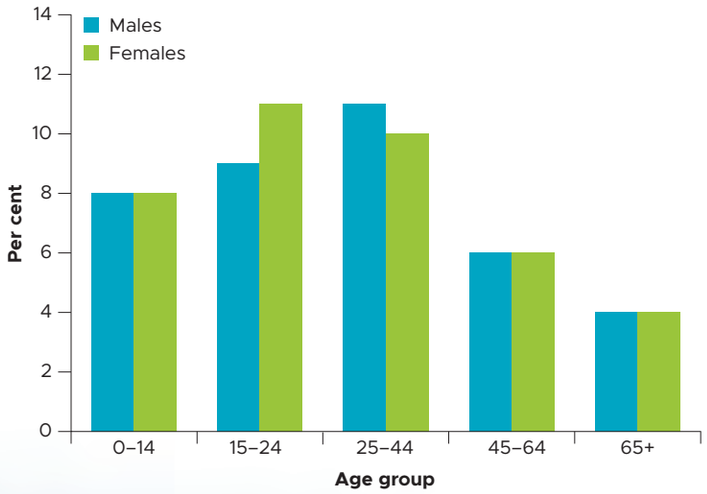
D *Population split between capital cities and regional areas in 2015* ▼



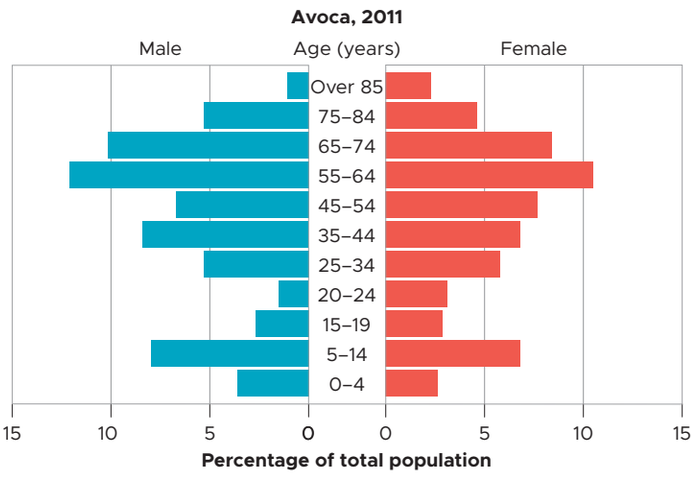
E *Internal migration to various parts of each state in 2015* ▼



F *Age and gender structure of internal migration, 2014* ▼



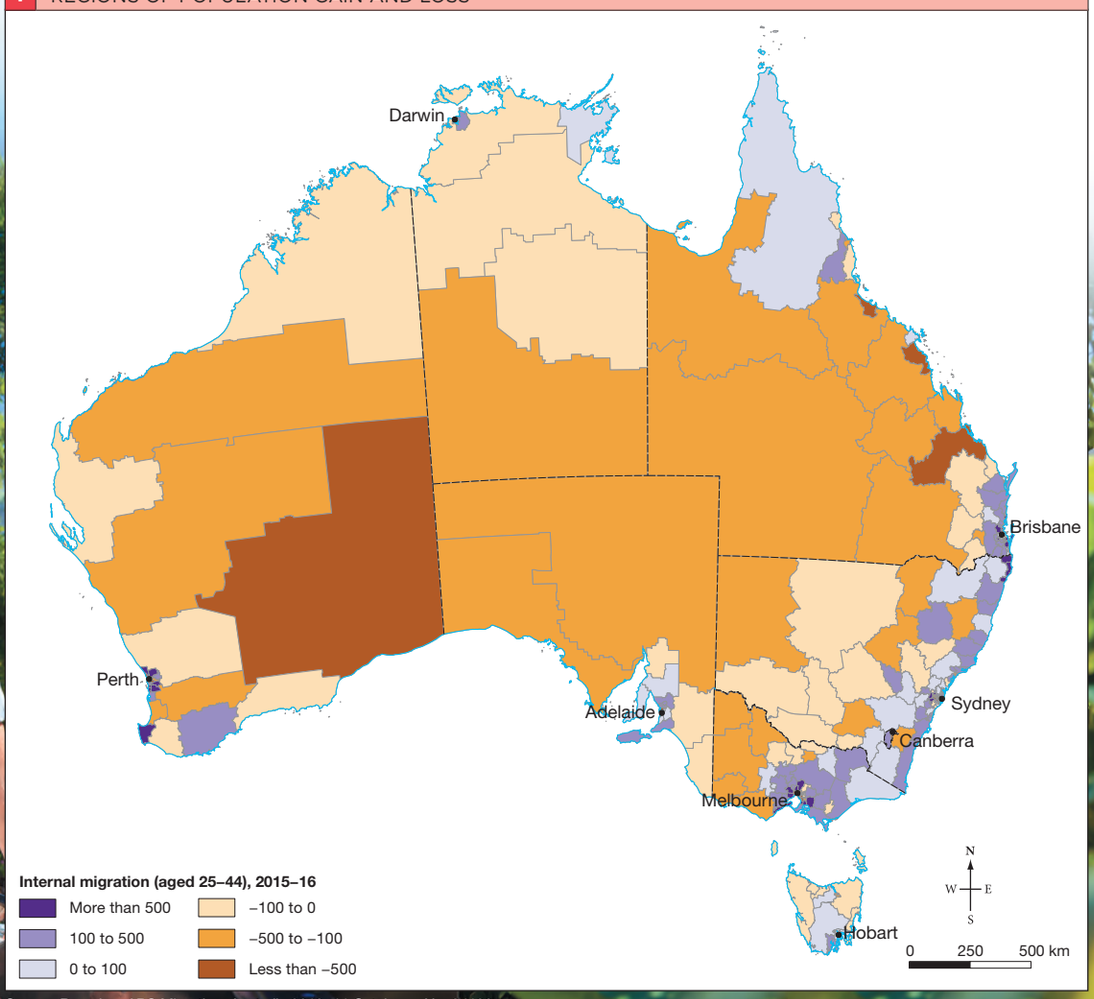
G *Out-migration of young people adversely affects the range of services and employment in small towns like Avoca.* ▼



H *Sea or tree change is very successful for many seniors.* ▼



I REGIONS OF POPULATION GAIN AND LOSS



Source: Based on ABS Migration, Australia 2010–11 Catalogue No. 34120

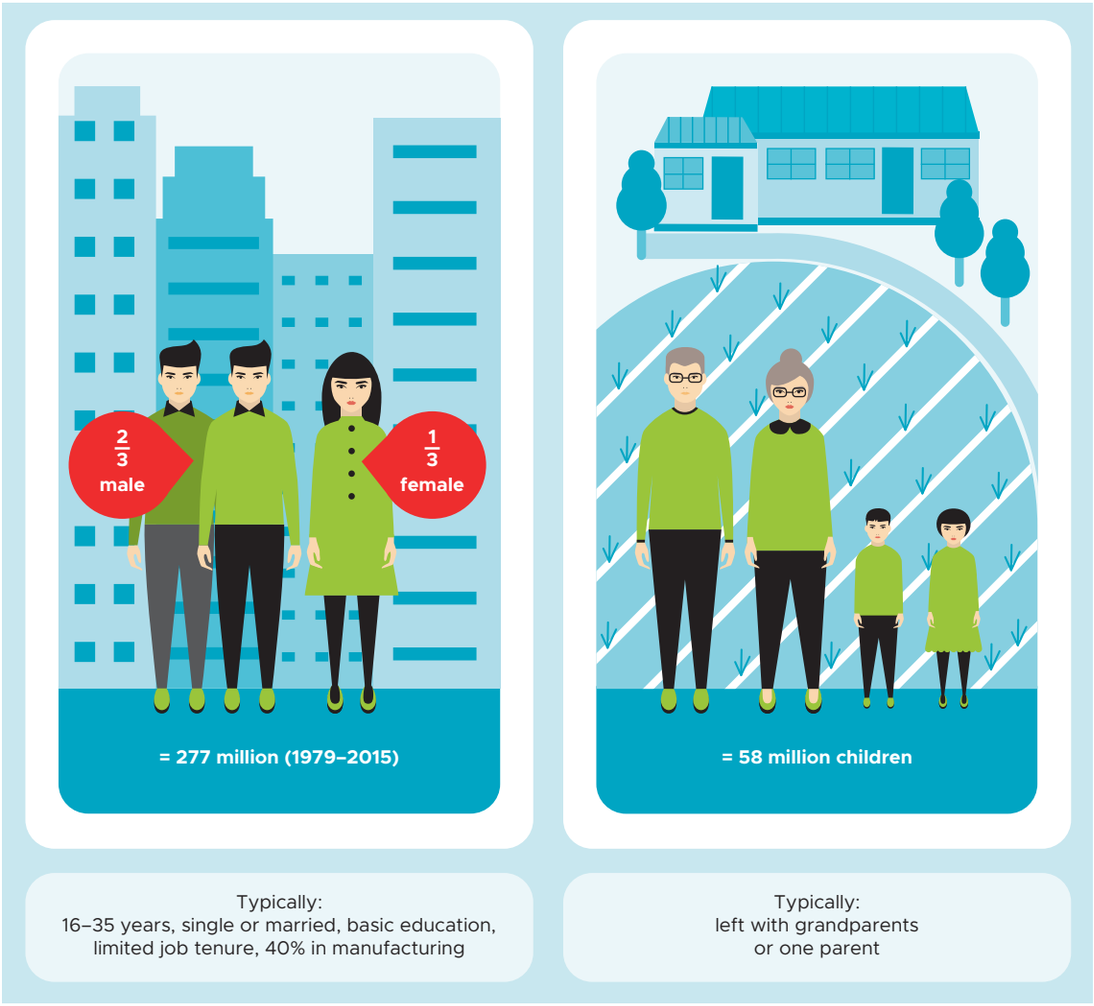
Internal migration, China

Since 1979 when China began new policies of economic and urban development, over 250 million people have moved from rural areas A B and small towns and cities to larger ones such as Beijing, Tianjin, Shanghai, Chongqing, Guangzhou and Shenzhen D E. Shanghai alone has more than 3 million migrant workers, Shenzhen at least 6 million. The major pull factors for these millions of people include the promise of higher living standards and earning capacity in the larger cities. This promise is reflected in the nation's increasingly uneven GDP per capita distribution C. The push factors for people to leave their homes continue to be the lack of opportunity for increasing their wellbeing in rural areas and the hard, all-weather work of farming that still produces minimal incomes for millions of households.

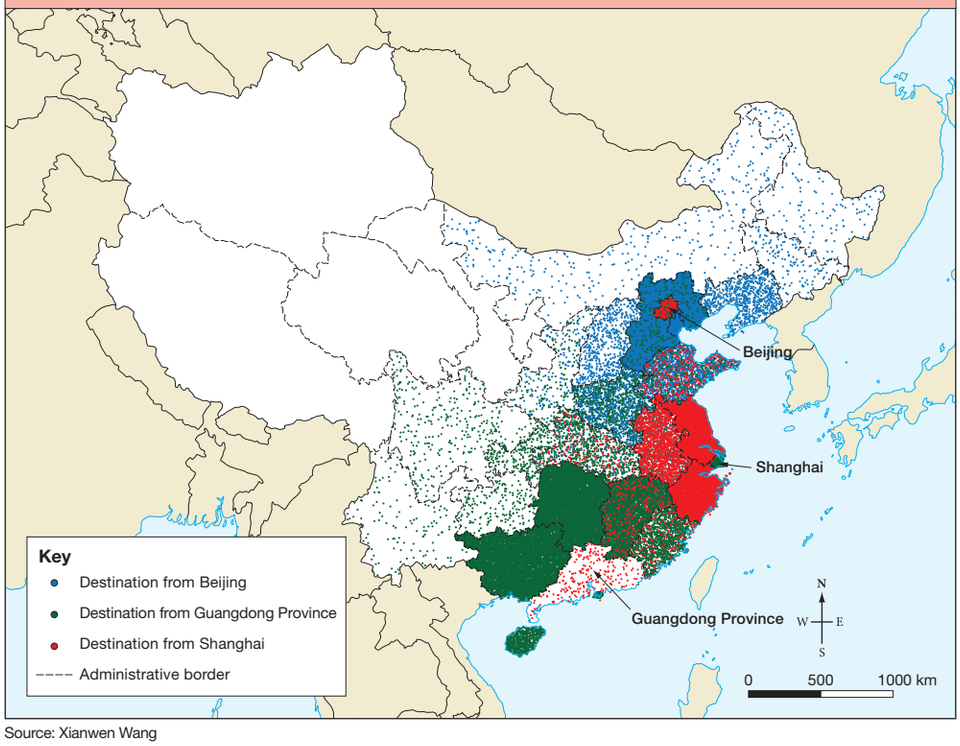
The majority of migrants are young, male and move outside their home province A. The International Labour Organization estimates 80 million of these migrants are in low-paying, unskilled jobs. They often have short-term contracts and casual pay rates. An economic downturn in the big urban areas would harshly impact on these people, forcing most to return home.

Separation from family members for long periods of time is a consequence of rural to urban migration in China. The long distances from home areas inhibit frequent visits. Chinese New Year and Autumn Moon Festivals generate billions of journeys, mostly by migrant workers B. Over 58 million children of migrant workers remain behind in rural areas looked after by a single parent or grandparents. In an effort to correct this, economic development in China's inland provinces has become another of the government's priorities.

A *Who moves to China's large cities?* ▼



B DESTINATIONS FROM BEIJING, SHANGHAI AND GUANGDONG PROVINCE BEFORE CHINESE NEW YEAR'S DAY, 2014



Source: Xianwen Wang

Until 1980 the region bordering Hong Kong supported around 30000 people in fishing and farming communities. Since then it has emerged as a megacity of 12 million people, 6 million of whom are non-local migrants. The major pull factor was the promise of salary payments in hundreds of factories built in this Special Economic Zone. Since 2000, Shenzhen has attracted increasing numbers of young, more educated and ambitious workers in high-tech industry, research and services. Shenzhen's GDP per capita in 2016 exceeded US$24000. The sprawling megacity has its problems of wastes, ageing factories and rising costs but boasts less pollution than Beijing or Shanghai.

Shenzhen has emerged as one of the great industrial and finance centres of the world. It is still a mass producer of low-cost clothing, toys and gadgets but is increasingly the home of technical companies producing higher value goods. They include Huawei (household and electrical), One Plus (mobile phones), DJI (drones) and Makeblock (robotics). BGI is now the world's biggest gene research centre. Info tech, biotech and green energy activities account for about 40 per cent of the region's economic output and this proportion is likely to grow in the future. Shenzhen's millions of migrant workers mostly live in dormitories built by large companies and near to work places.

C GROSS DOMESTIC PRODUCT PER CAPITA DISTRIBUTION BY ADMINISTRATIVE REGIONS, 2015



Source: Spatial Vision

D *The rural fringe of Shenzhen, a megacity of 12 million people* ▼

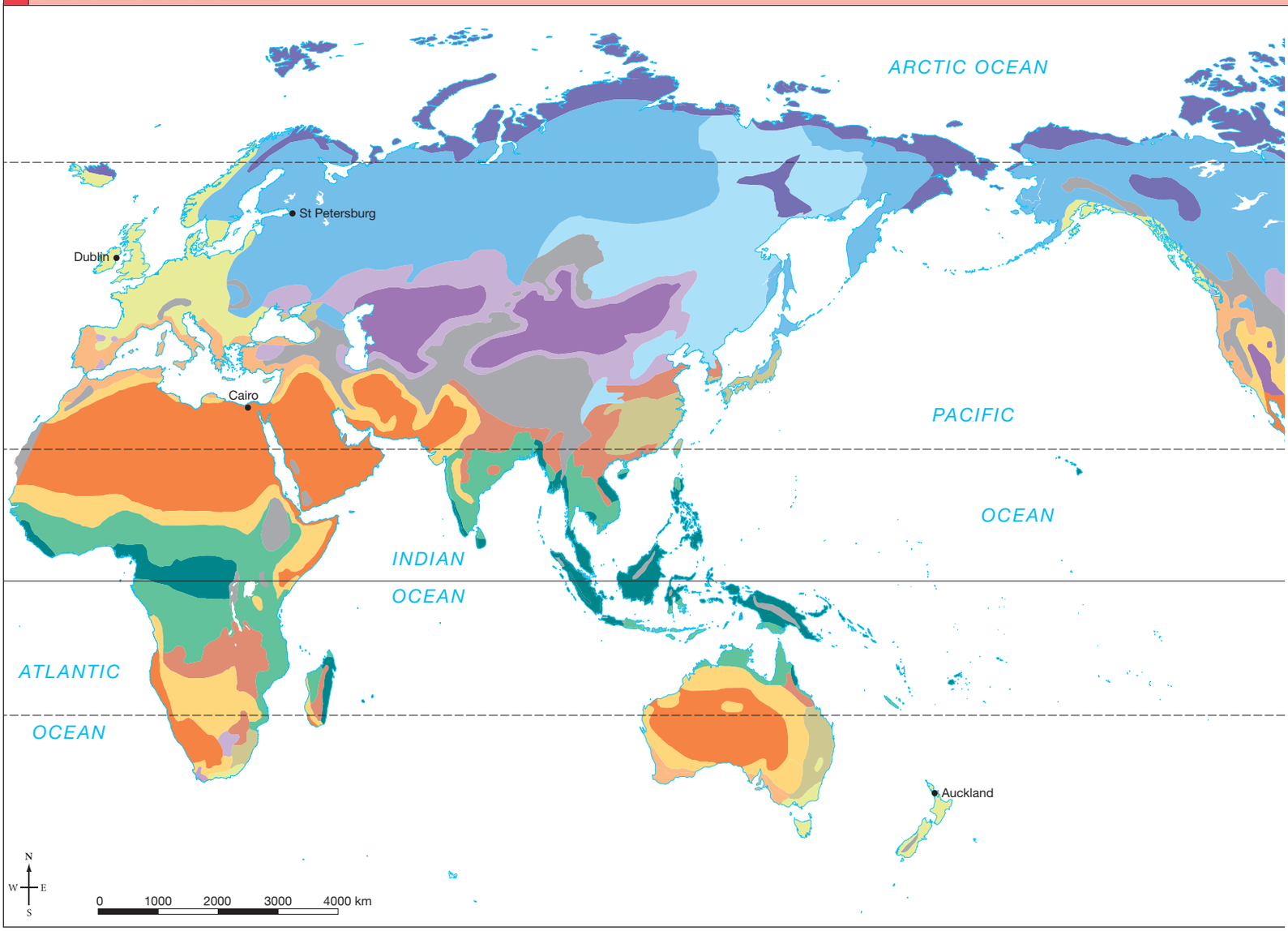


E *Workers inspect television panels in a Shenzhen factory* ▼



World climate

A THE WORLD'S MAJOR BIOMES

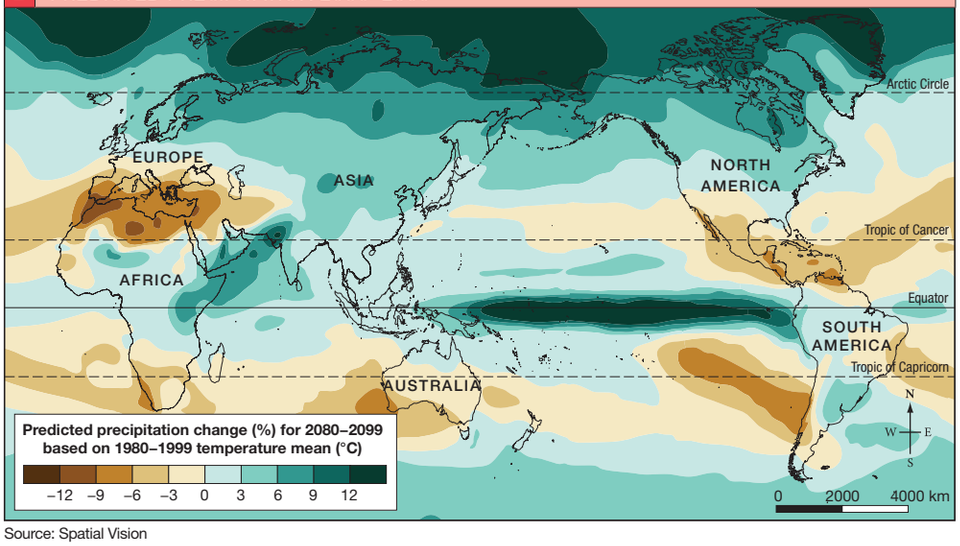


Source: MAPgraphics

Key

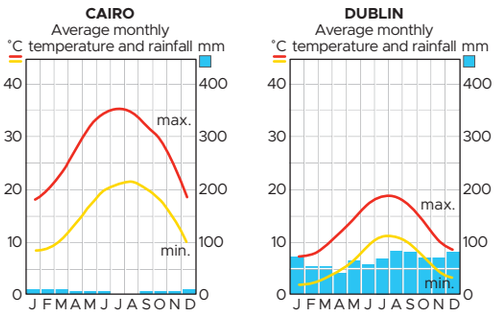
- **Tropical wet:** hot; wet for most of the year
- **Tropical wet and dry:** hot all year; wet summers, dry winters
- **Hot desert:** hot all year; less than 250 mm rain per year
- **Hot semi-desert:** hot all year; 250–500 mm rain per year
- **Cold semi-desert:** hot in summer, cold in winter; 250–500 mm rain per year
- **Cold desert:** hot in summer, cold in winter; less than 250 mm rain per year
- **Subtropical wet:** warm; rain all year
- **Mild wet:** mild; rain all year
- **Subtropical, dry winter:** warm all year; dry winter
- **Subtropical, dry summer:** warm all year, dry summer
- **Cold wet:** cold winters, cool to hot summers; moderate rain all year
- **Cold, dry winter:** cold dry winters, cool to hot summers; moderate rain
- **Polar:** extremely cold all year; nearly all snow and ice; less than 250 mm precipitation per year
- **Highlands:** cool to cold; occurring in mountains and high plateaus; snow cover increases with altitude

B PREDICTED PRECIPITATION 2080–2099



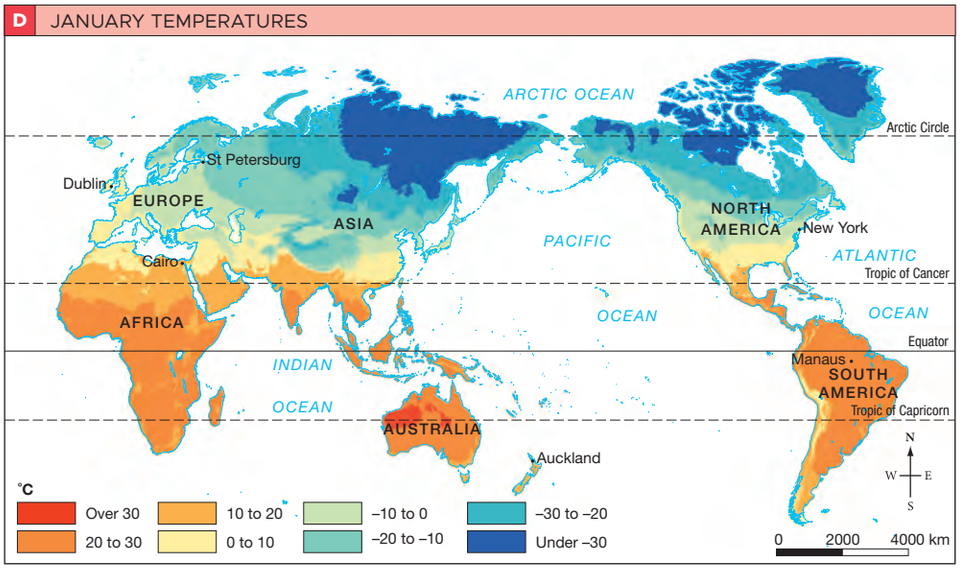
Source: Spatial Vision

C *Selected climographs* ▼



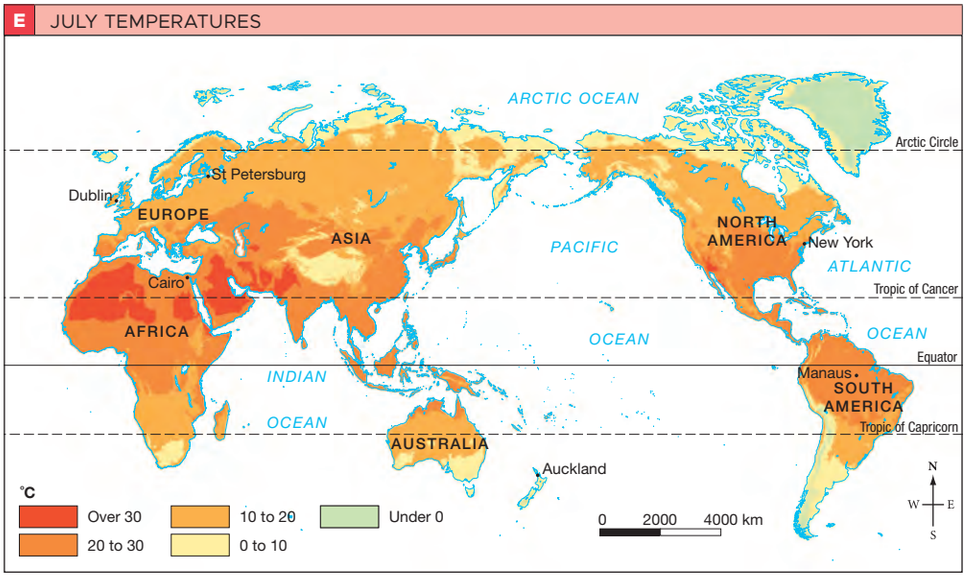


D JANUARY TEMPERATURES

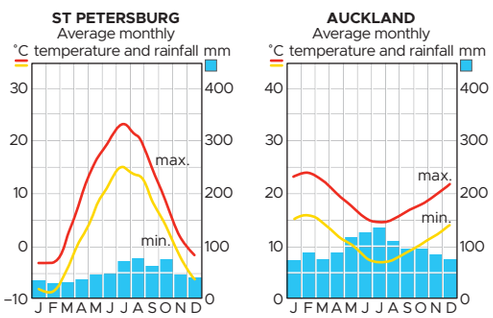


Source: WorldClim

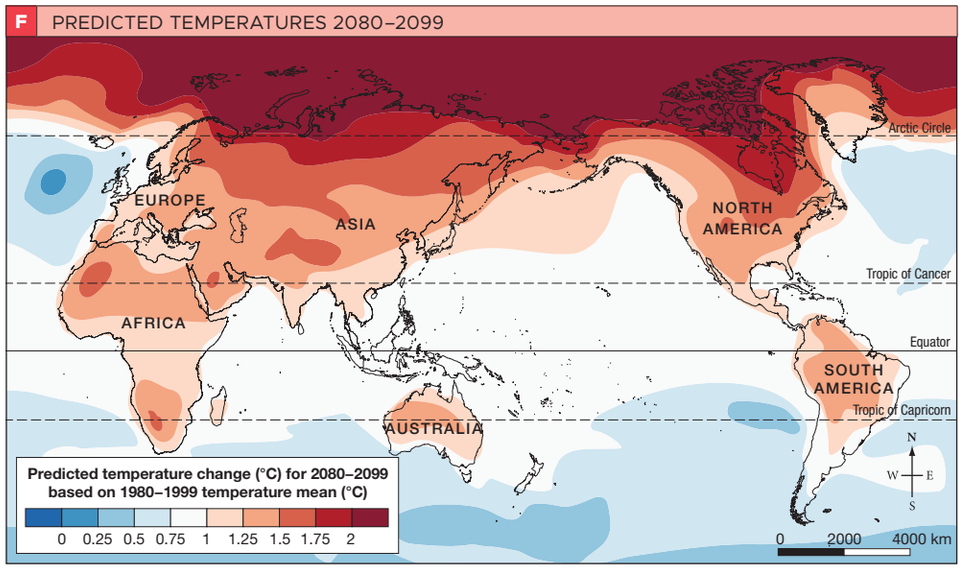
E JULY TEMPERATURES



Source: WorldClim



F PREDICTED TEMPERATURES 2080–2099



Source: Spatial Vision



Biomes

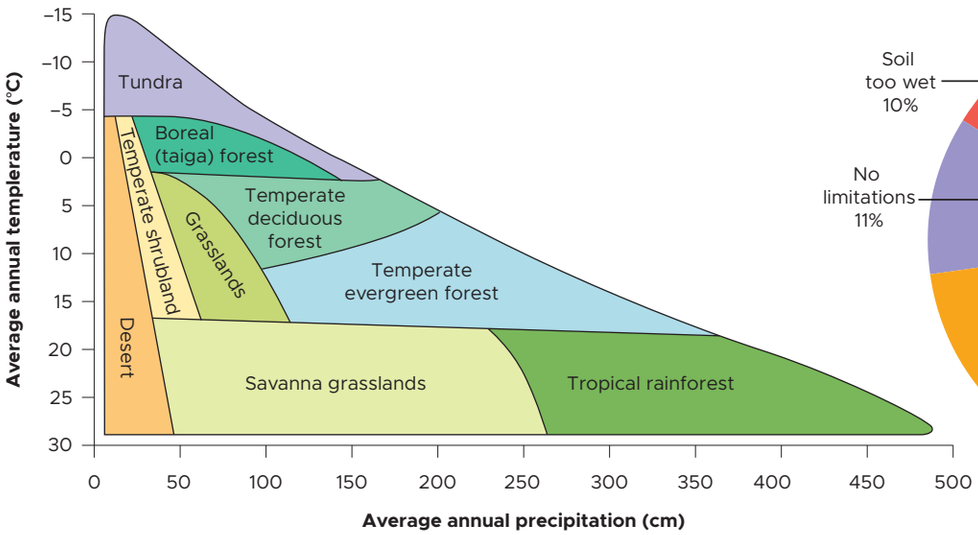
World

A biome is a specific geographic area of the world that can be classified according to the type of plants and animals that inhabit and are adapted to that environment. Temperatures, soil, and the availability of water and light influence what lives in a biome.

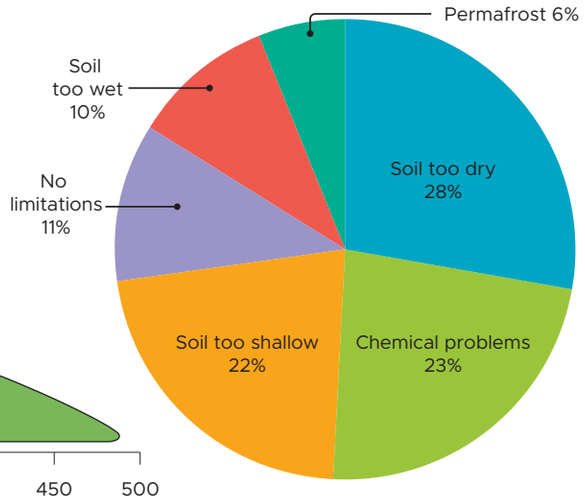
Globally, five main biomes can be identified and then these can be broken down further into smaller sub-biomes **C**; for example, forests can be classified as tropical, boreal and temperate **D**. There are also both terrestrial (land-based) and aquatic (water-based) biomes.

Within a biome, there exist strong interconnections with climate, soil types and vegetation cover **A** **D** **E**. Biomes also have different levels of productivity, which influence how people use them to obtain food and fibres. Only 11 per cent of the world's soils are suitable for agriculture. The remaining 89 per cent are too dry, too wet or have other limitations **B**. The most fertile soils are used for arable farming (cropping) whereas less fertile soils support grasslands and forests that are mostly used for grazing.

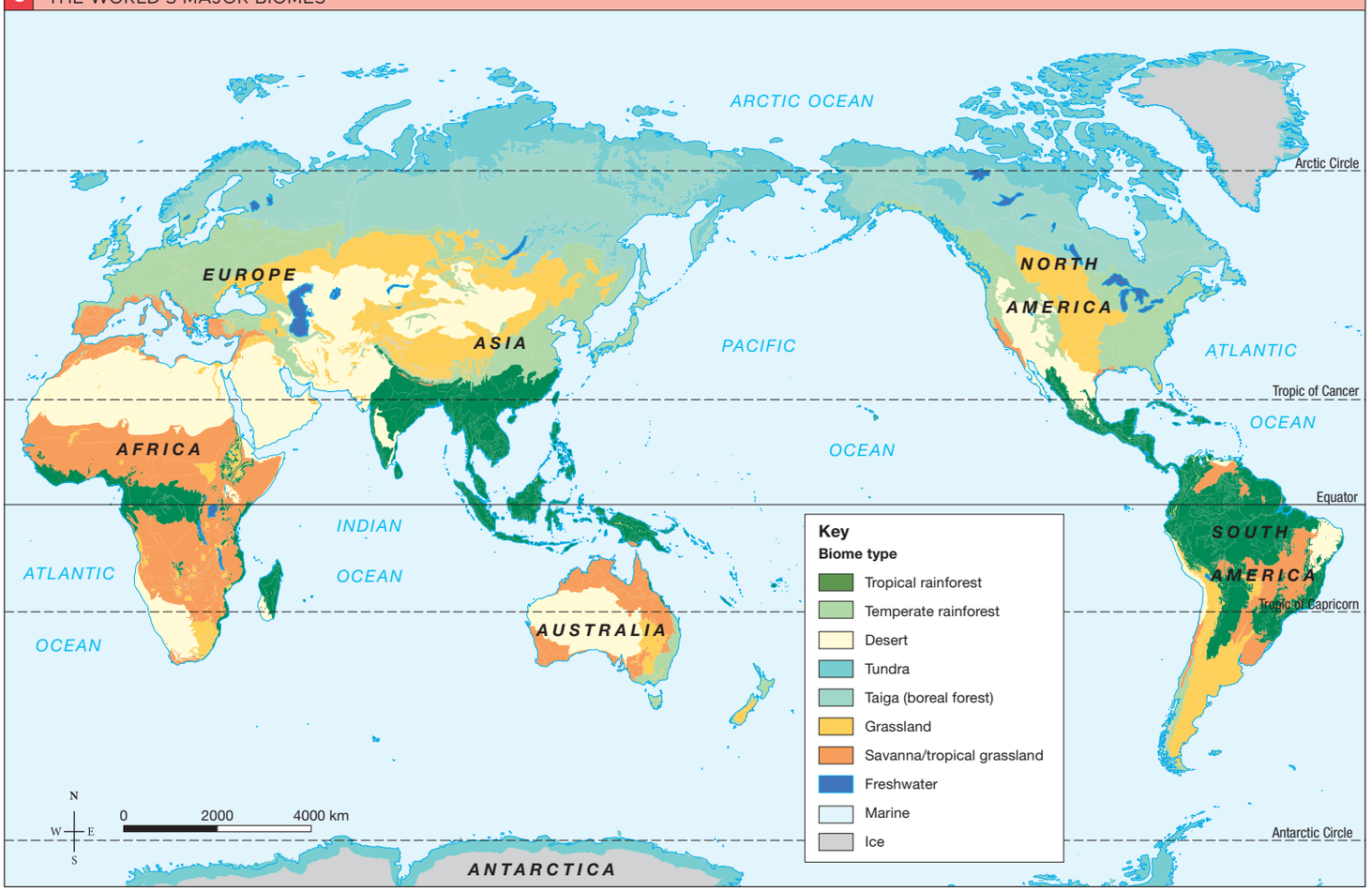
A *The interconnection between biomes and climate* ▼



B *Soil limitations* ▼



C THE WORLD'S MAJOR BIOMES



Source: Redrawn by Spatial Vision based on the information from the Nature Conservancy and GIS Data

D *Characteristics of selected terrestrial biomes* ▼

BIOME: Tundra



Only small plants and grasses can grow through the short summer months. Soils are often frozen (permafrost).

Rainfall	Temperature	Soils
Low	Summer mild, winter cold	Poor

BIOME: Desert



Plants and animals have to adapt to long periods with low moisture and extreme temperatures.

Rainfall	Temperature	Soils
Low	Variable	Poor

BIOME: Tropical grasslands (savanna)



Tree-studded grasslands. Many animals have adapted with long legs to outrun predators and often survive in herds.

Rainfall	Temperature	Soils
Variable	Mild	Clay

BIOME: Taiga (boreal) forest



The world's largest biome dominated by tall conifers. Long cold winters force many animals to hibernate or migrate.

Rainfall	Temperature	Soils
Moderate	Summer mild, winter cool	Poor, acidic

BIOME: Temperate forest



These forests experience all four seasons, with deciduous trees dominating.

Rainfall	Temperature	Soils
Moderate	Summer moderate, winter cold	Rich

BIOME: Ice



Ice dominates the landscape all year round. Minimal plant and animal life.

Rainfall	Temperature	Soils
Variable	Cold	Frozen beneath ice

BIOME: Tropical rainforest



A wide variety of plants competing for light in a hot, wet environment. Large biodiversity.

Rainfall	Temperature	Soils
High	Hot	Poor

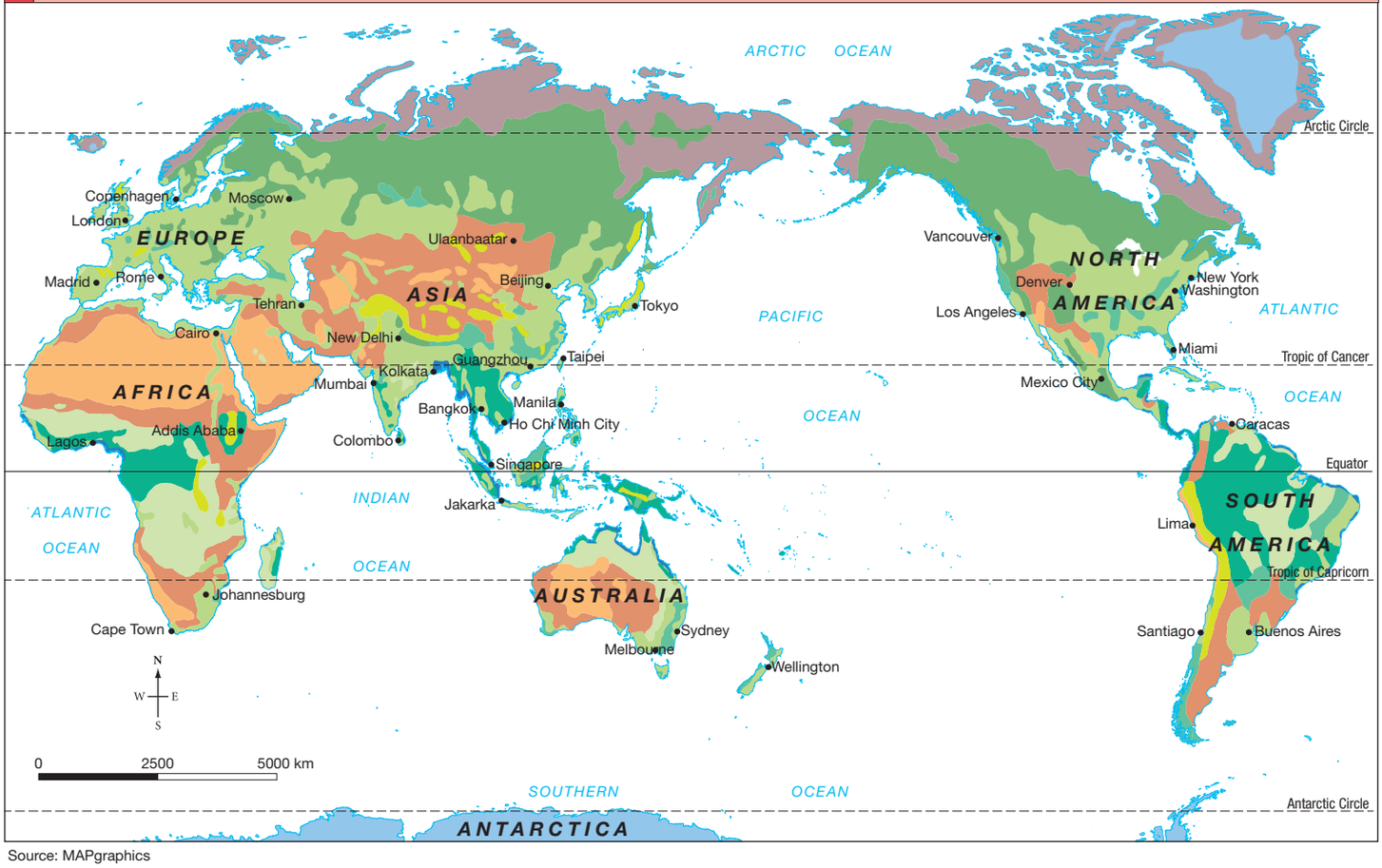
BIOME: Grasslands



Also known as prairies or plains, grasses are the dominant species. Fires are frequent.

Rainfall	Temperature	Soils
Moderate	Summer hot	Rich

E WORLD VEGETATION



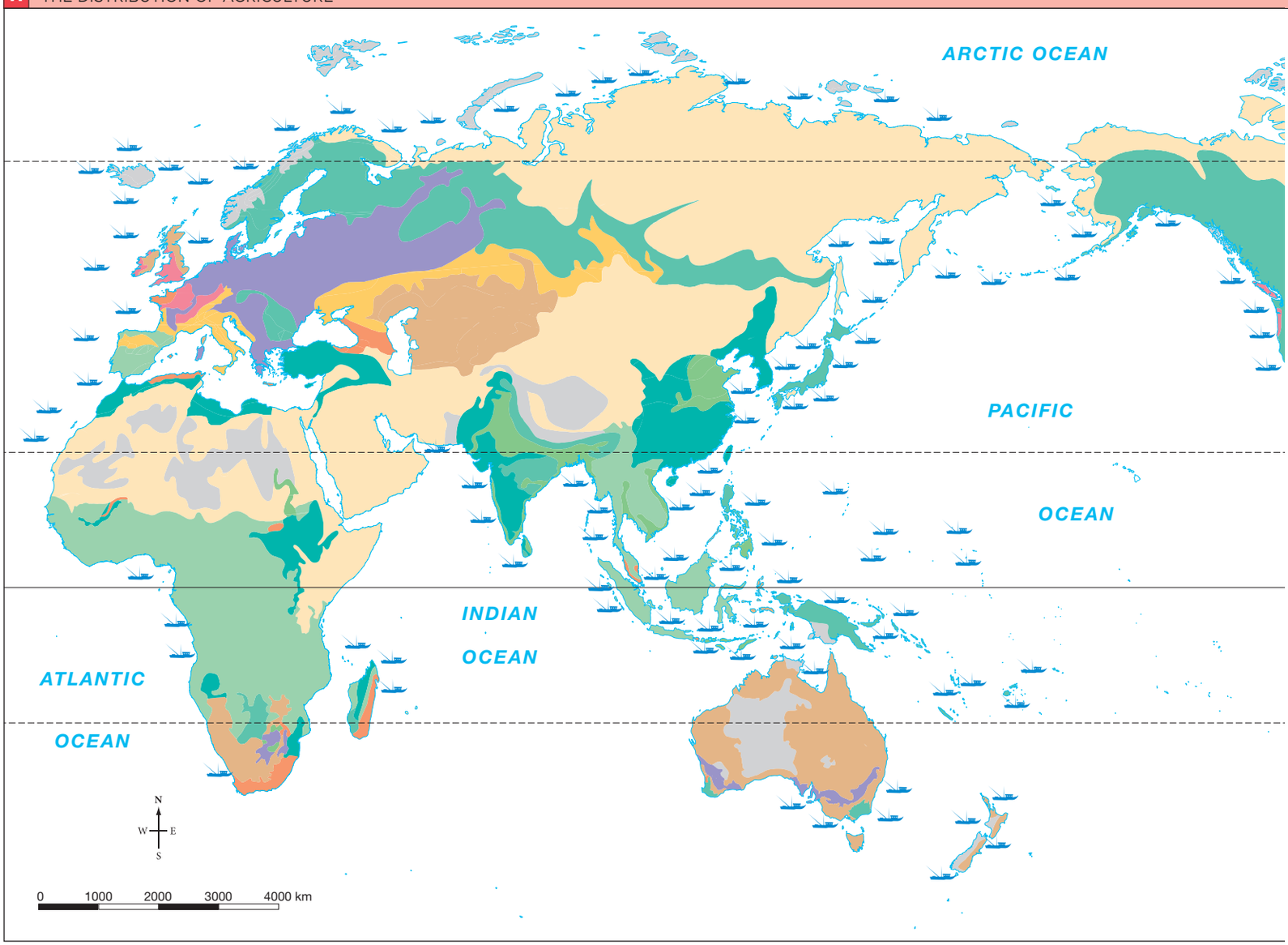
Source: MAPgraphics

Vegetation types

- Coniferous forest
- Tundra
- Ice cap
- Savanna
- Open forest
- Desert
- Grassland
- Rainforest
- Cultivated land
- Mountain vegetation
- Mangroves

World agriculture and food security

A THE DISTRIBUTION OF AGRICULTURE



Source: MAPgraphics

Agriculture

- **Shifting cultivation** — *People farm small areas until the area becomes unproductive and move on to farm other areas.*
- **Subsistence — mixed crops and livestock** — *People produce only what they need, sometimes using primitive techniques such as slash and burn.*
- **Intensive — rice dominant** — *People farm small areas of land to produce mainly rice. Surplus is sold at markets.*
- **Commercial — grain dominant** — *People grow grain crops that are then sold for income. The main crop is wheat.*
- **Forested areas** — *Heavily timbered areas where some minor farming may be present*
- **Commercial — mixed crops and livestock** — *People grow grain crops for human use and animal feed. Both crops and livestock are sold for income.*
- **Specialised — plantation and market gardening** — *People grow large quantities of fruit, vegetables, sugarcane or coffee.*
- **Commercial livestock rearing** — *People graze large herds of animals on open pastures.*
- **Dairying** — *People graze dairy cattle to produce milk and they also grow mixed crops.*
- **Nomadic herding** — *People move their domesticated animals from one grazing area to another to find food.*
- **Little or limited use** — *People are unable to use the land or the environment is too cold, too mountainous or too dry.*

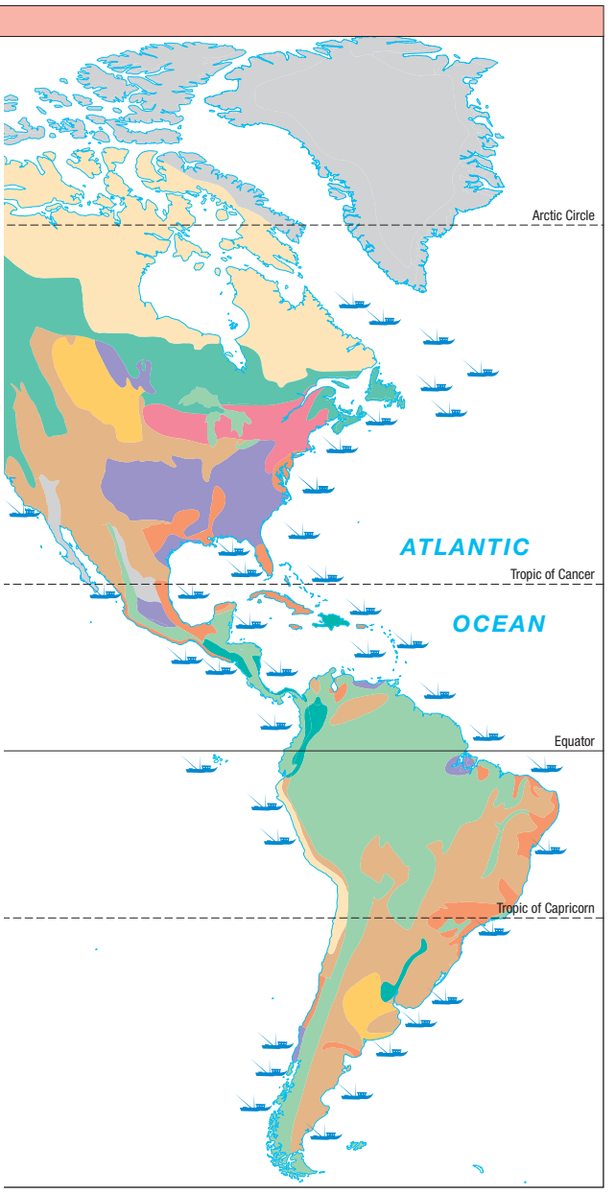
Fishing

- Major fishing area

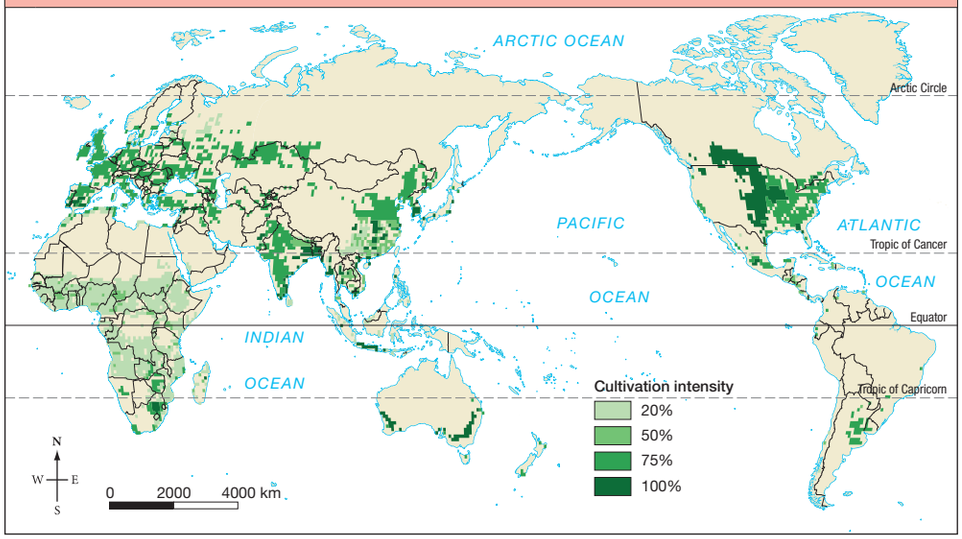
The world has many agricultural regions A, but faces enormous challenges in this century. The primary one is to produce 70 per cent more food for an additional 2.3 billion people by 2050. This needs to be done while enabling agriculturally dependent nations to develop, fight poverty and hunger C, use scarce land and water more efficiently and sustainably, and adapt to climate change.

Existing agricultural practices have led to a reduction of agricultural land since 1998 B E, while the demands on agriculture are growing. Pressures on land include change to cash crops, industrialisation and urban pressures. Developing technological approaches such as extensive greenhouses where land is not arable (e.g. Almeria D) can have significant impact on improving crop yields F. Their reflection of the sun's rays (albedo) is so strong the temperature in the region has dropped by 1 degree Celsius.

Overall, only 55 per cent of crops are directly consumed by people. A further 45 per cent is used for fibre, stock, biofuels and to feed animals. As living standards rise in many developing nations, there is growing demand for a higher protein diet, which contains more meat and eggs. Demand for meat has tripled in the last 40 years. In developed countries, vast amounts of food are wasted every year. The average Australian family wastes 523 kilograms of food per year, worth $8 billion.

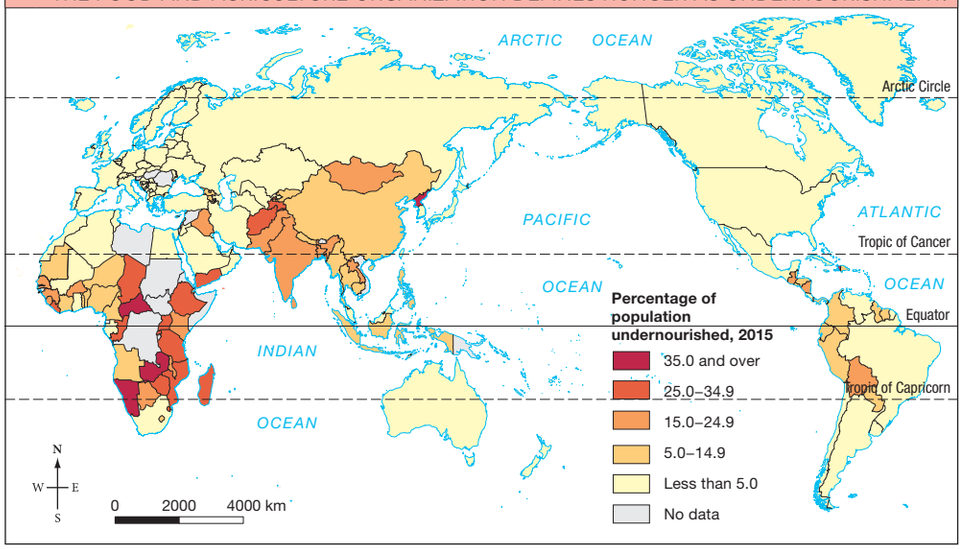


B THE GREATEST POTENTIAL FOR NEW AGRICULTURAL LAND LIES IN SUB-SAHARAN AFRICA AND LATIN AMERICA, BUT FORESTS MUST BE CONSERVED.



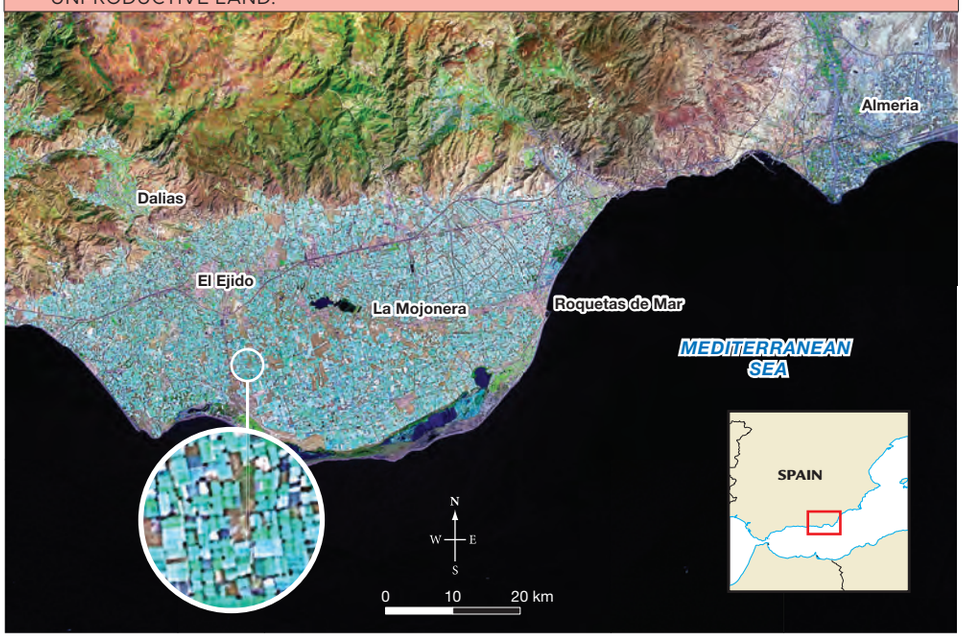
Source: NASA GISS dataset 'Global Distribution of Cultivation Intensity', Matthews, E. 1983. Global vegetation and land cover: New high-resolution data bases for climate studies. J. Clim. Appl. Meteor. 22, 474-487

C UNDERNOURISHMENT IS WHEN A PERSON DOES NOT HAVE ENOUGH FOOD TO MEET THEIR MINIMUM DIETARY ENERGY REQUIREMENTS, OVER A PERIOD OF ONE YEAR. THE FOOD AND AGRICULTURE ORGANIZATION DEFINES HUNGER AS UNDERNOURISHMENT.



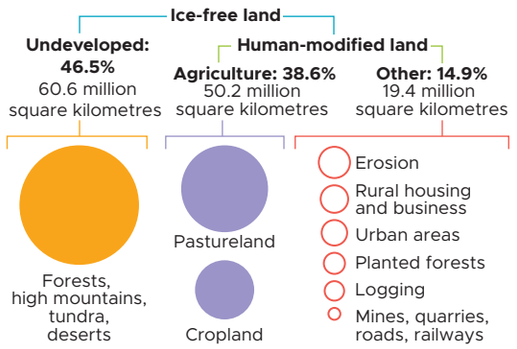
Source: Food and Agriculture Organization of the United Nations, reproduced with permission

D FALSE-COLOUR SATELLITE IMAGE OF GREENHOUSES IN THE ALMERIA REGION. GREENHOUSE PRODUCTION IMPROVES CROP YIELDS FROM OTHERWISE UNPRODUCTIVE LAND.



Source: NASA/GSFC/METI/ERSDAC/JAROS, and U.S./Japan ASTER Science Team

E *Arable land is a small proportion of the Earth's surface.* ▼



F *A controlled environment, including hydroponics, maximises production.* ▶



Land degradation and food production, Australia

In Australia, land degradation occurs because of a combination of human activities and natural processes. These changes are mostly brought about by human activities. The predominant cause of land degradation in Australia has been the permanent removal of native vegetation. Since European settlement, about 13 per cent of Australia has been cleared **A** and about two-thirds of agricultural land is degraded **B**.

Climate change is another factor beginning to challenge food production in Australia. Estimates of the impact of climate change on food production in Australia vary. The possible impact ranges from a 17 per cent reduction in national agricultural production to a possible 92 per cent drop in irrigated production in the Murray–Darling Basin by 2100. The possible impact of climate change on specific types of food production is shown in figure **C**.

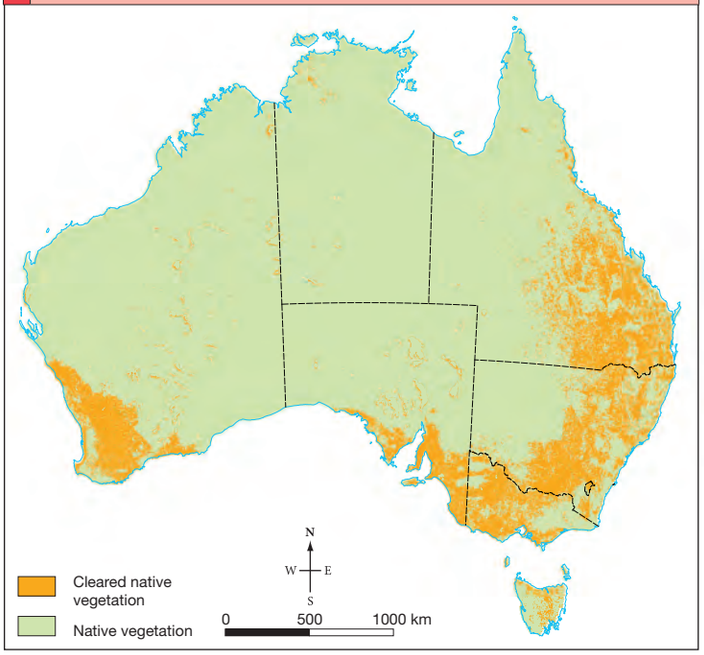
At a regional level, the loss of farmland in the areas surrounding major urban centres is another problem that will reduce future food production. For example, Melbourne is surrounded by a highly productive food bowl that currently grows a wide variety of fresh foods, but it faces the loss of farmland due to its rapid urban expansion **D**.

Werribee South, located 30 km south-west of Melbourne, produces 10 per cent of Victoria's vegetables. Although small in size at 3275 hectares of agricultural land (0.02 per cent of the state), it produces:

- 85 per cent of the state's cauliflower
- 53 per cent of the state's broccoli
- 34 per cent of the state's lettuce.

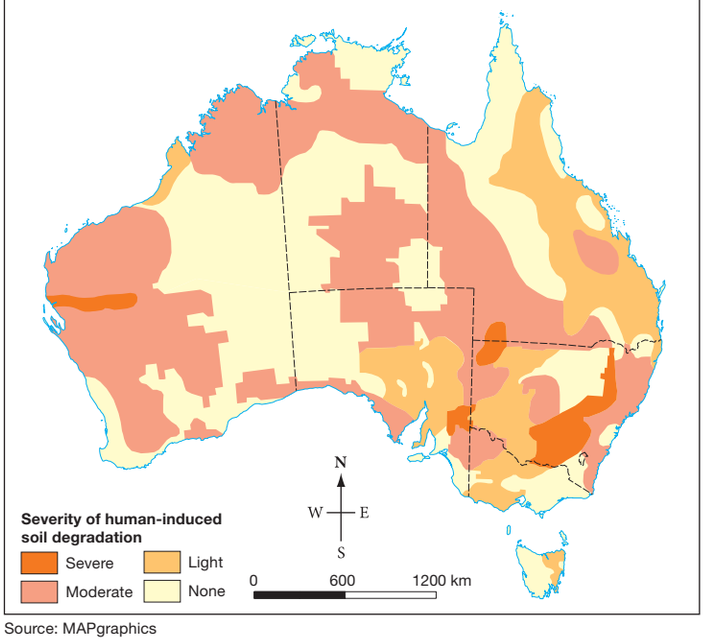
Werribee South's agricultural areas are coming under pressure as it is surrounded by residential development **E**.

A CLEARED NATIVE VEGETATION AREAS IN AUSTRALIA



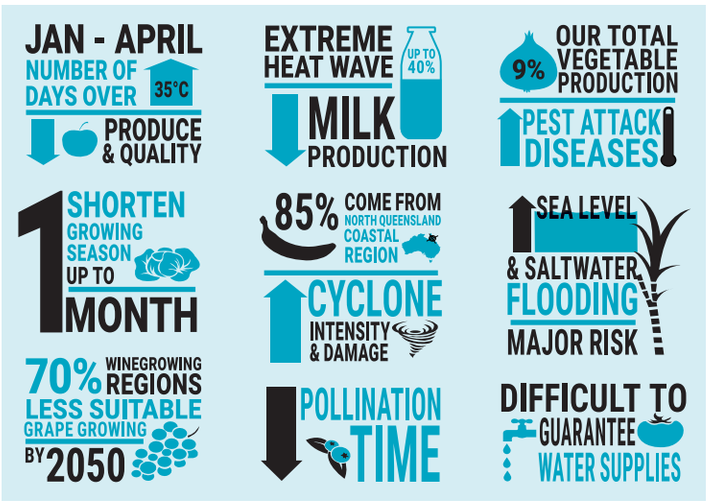
Source: Department of Environment and Energy © Commonwealth of Australia 2017

B LAND DEGRADATION MAP OF AUSTRALIA

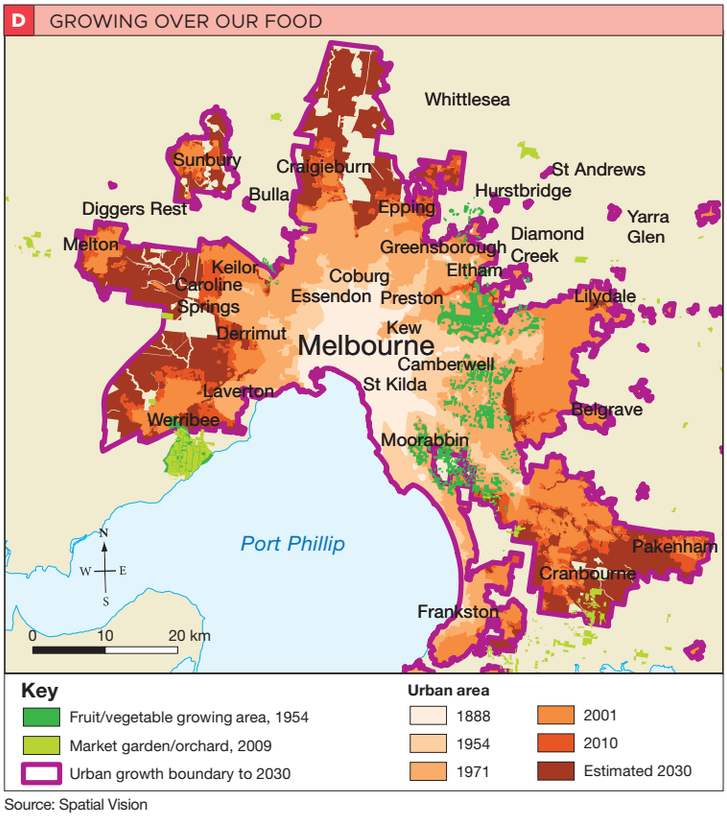


Source: MAPgraphics

C *The possible future impact of climate change on Australian agriculture* ▼

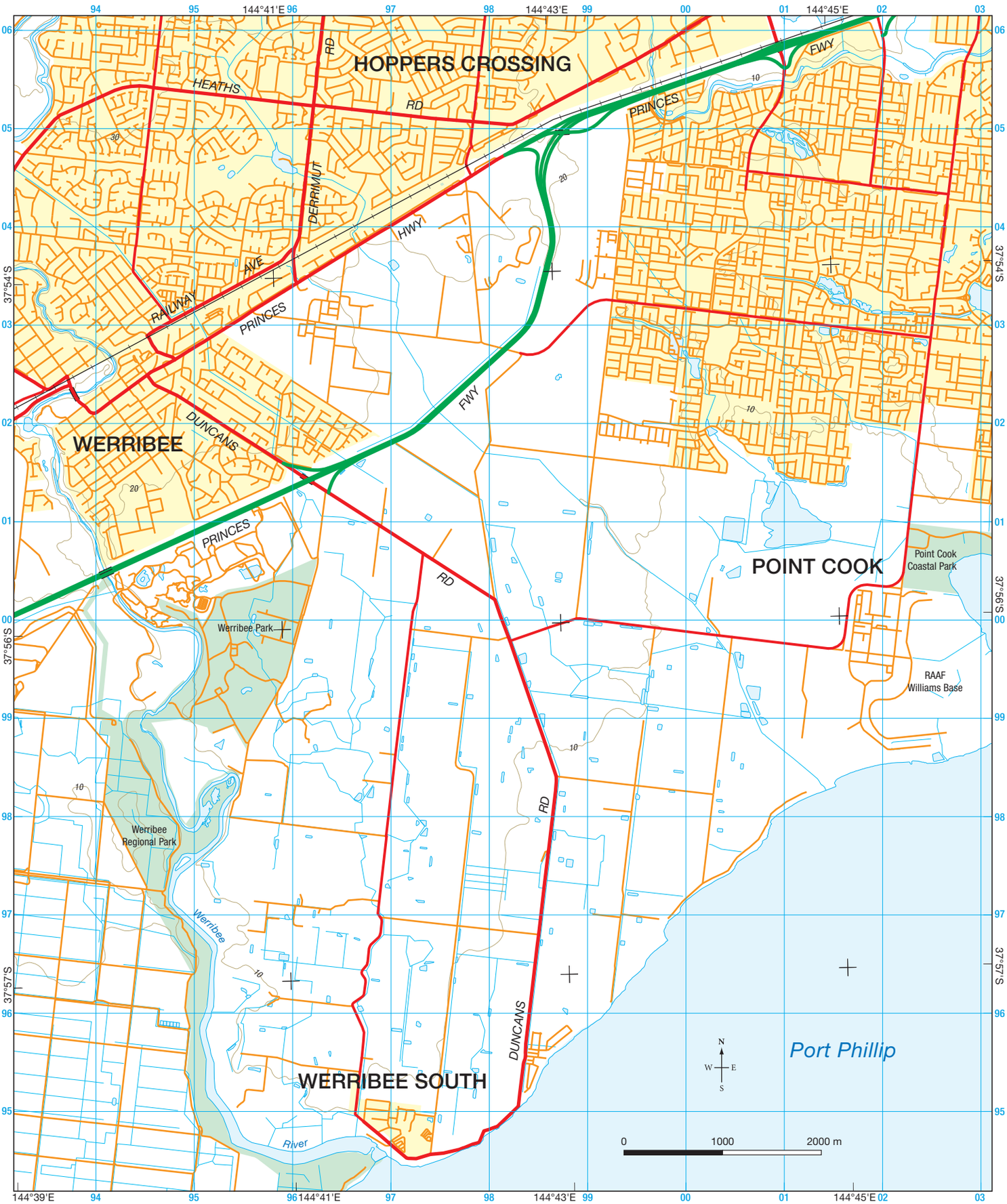


D GROWING OVER OUR FOOD



Source: Spatial Vision

E EXTRACT FROM 1:50 000 TOPOGRAPHIC MAP OF WERRIBEE SOUTH



Source: Department of Environment, Land, Water and Planning

Key

- Sea, lake, dam, river
- Watercourse, canal
- Park, reserve
- Contour 10 m interval
- Built-up area
- Railway
- Freeway
- Principal road
- Secondary road
- Minor road
- Bridge

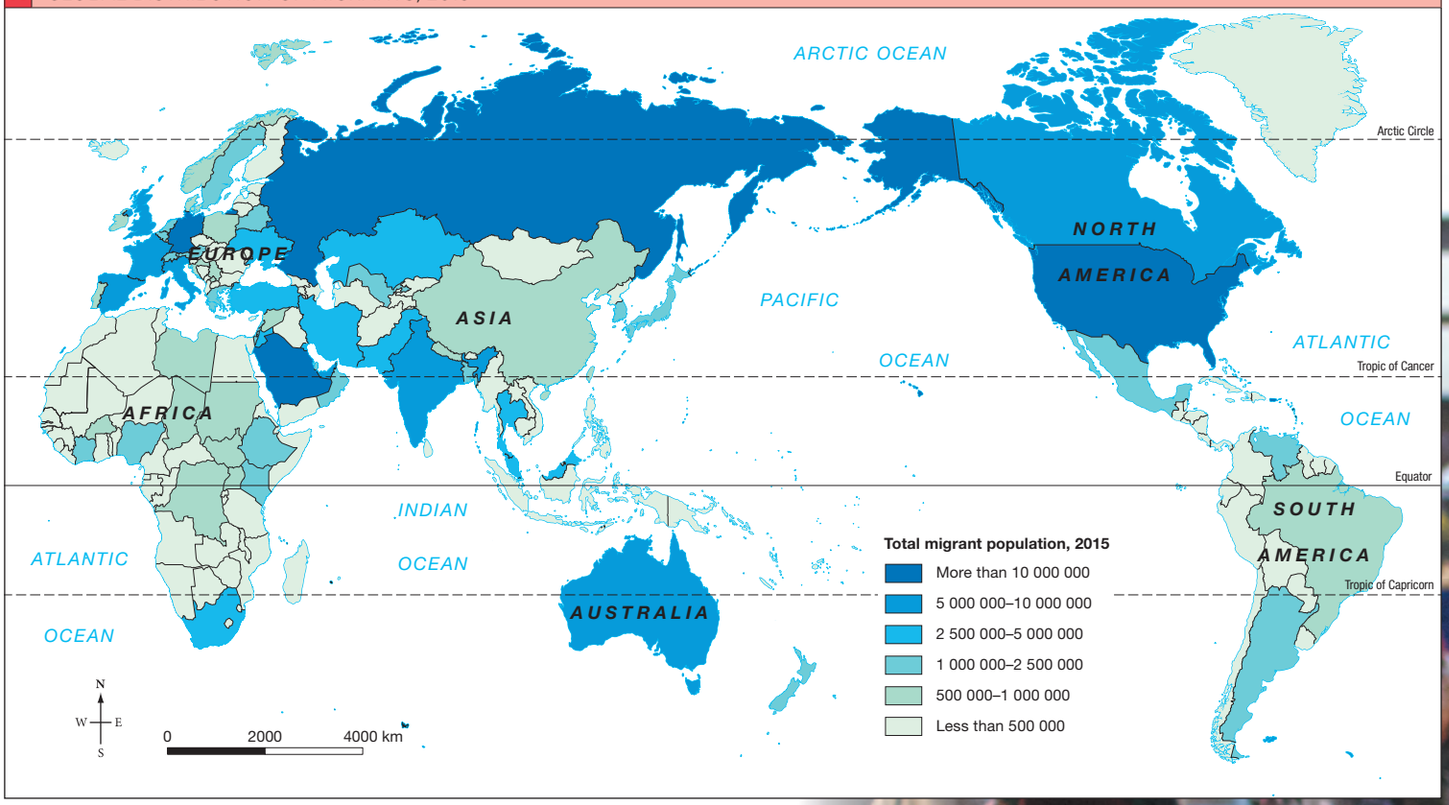
Migration

Modern transportation has enabled the world to become more interconnected. Migration has many forms, varying in scale, freedom to move and the permanency of movement. The reasons why people move are complex and tied to their perception of their source of origin and destination.

The number of international migrants worldwide has continued to grow rapidly over the past fifteen years, reaching 244 million in 2015, with 67 per cent of all international migrants living in just 20 countries **A**. While for many migration is an empowering experience, not all movements are voluntary or regular and, since 2006, the number of refugees has increased **B**. In 2015, over 60 million people were displaced, either within their home country or by choosing to cross boundaries to another country, because of conflict and persecution. More than a million migrants and refugees from countries such as Syria, Afghanistan, Iraq and Eritrea crossed into Europe in 2015 **C**. This is not the only area of the world where major population movements are occurring **D**.

Besides conflict and persecution, people can be forced to move because of natural or environmental disasters, famine, extreme poverty or development projects. Another form of movement is human trafficking or the trade of humans, most commonly for the purpose of forced labor, sexual slavery, or commercial sexual exploitation for the trafficker or others **E**.

A GLOBAL DISTRIBUTION OF MIGRANTS, 2015



Source: Redrawn by Spatial Vision; data sourced from the United Nations

B *Conflict and the rise in refugee numbers* ▼



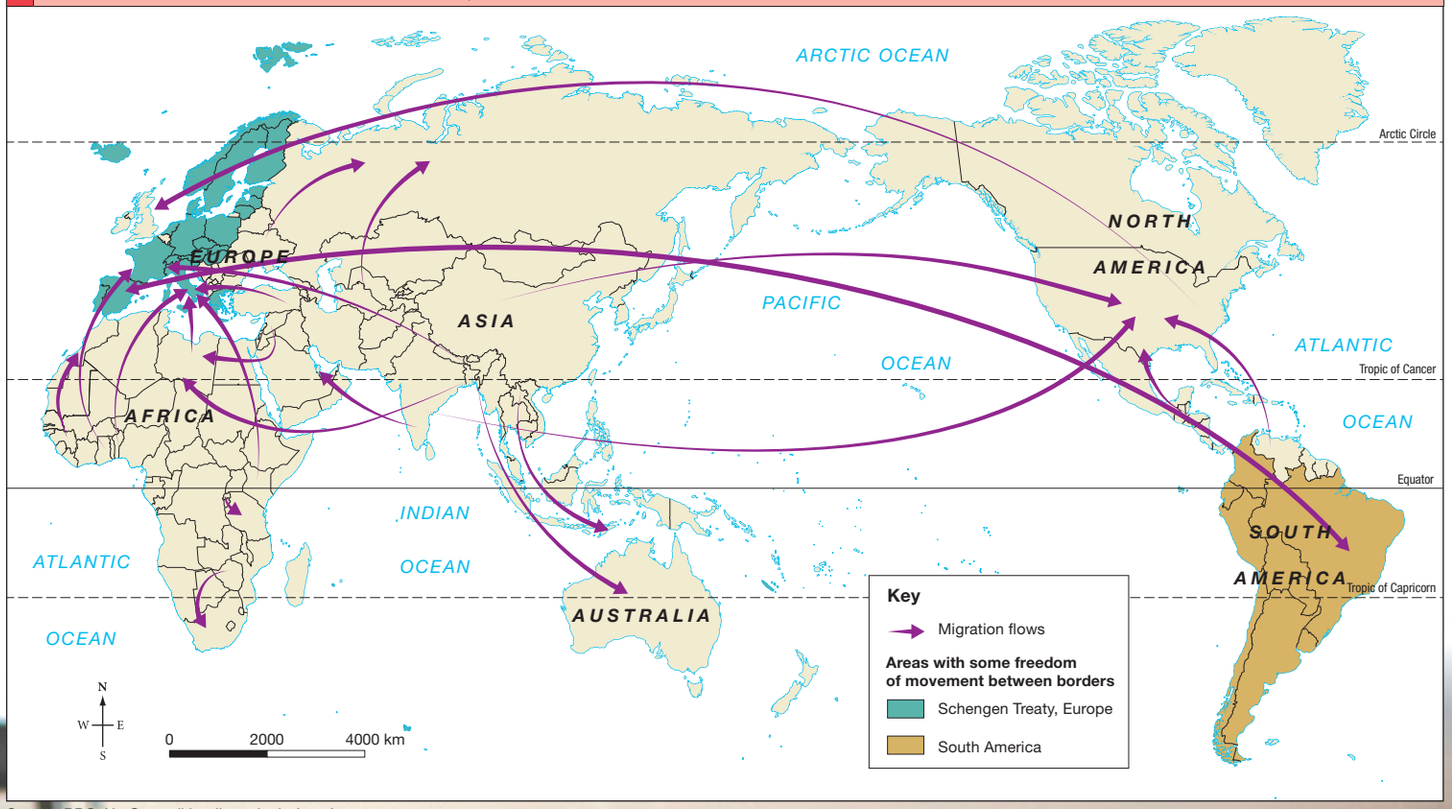
Sources: UNHCR; NATO; Migration Policy Institute; Refugees International; US State Department; press reports

*Includes internally displaced people
+Data missing for some countries before 1990s. Excludes 5.1 million Palestinians who are under the mandate of the UNRWA
#To end June

C *Syrian refugees near the Turkish border, 2014* ▼

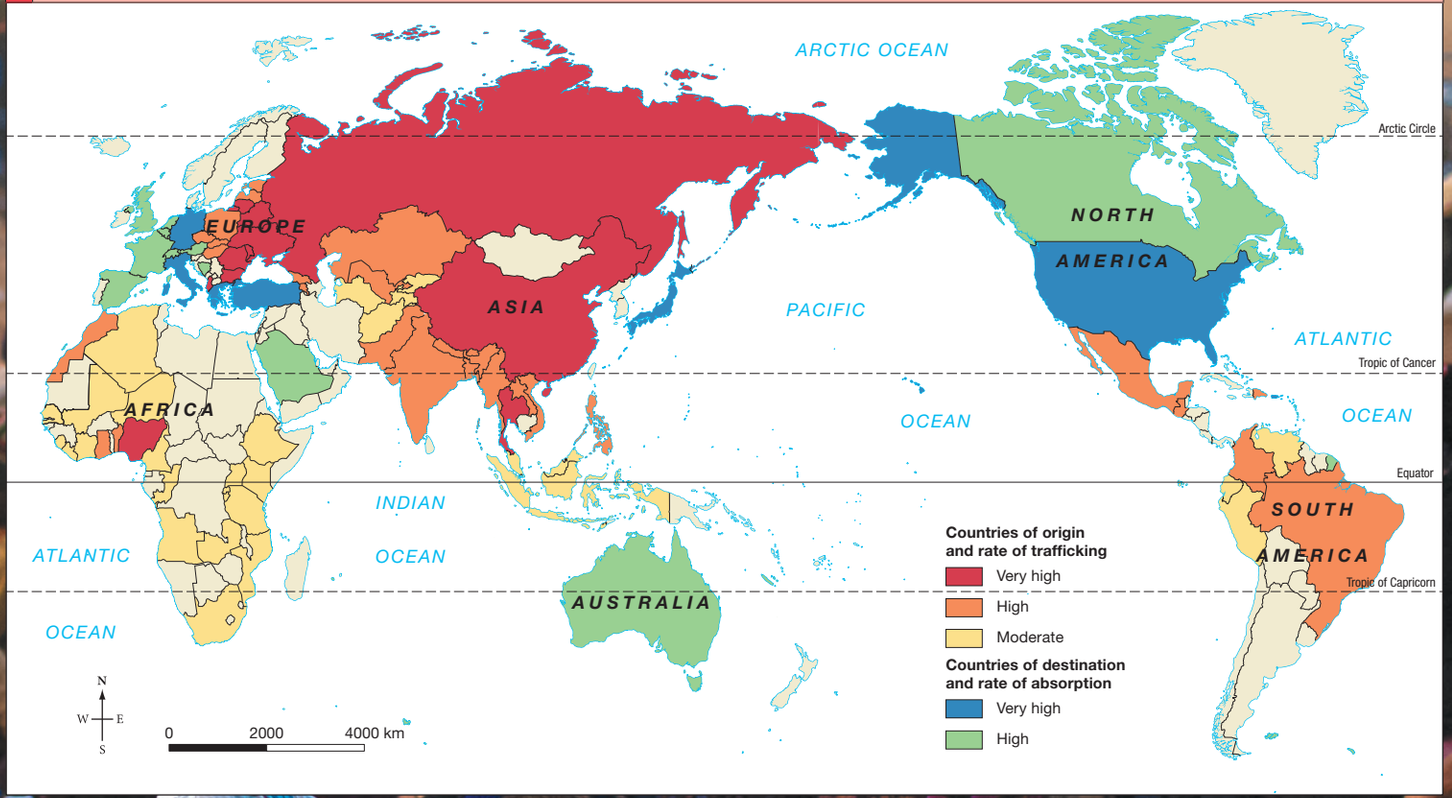


D THE WORLD'S MAJOR MIGRATION ROUTES, 2015



Source: BBC, NatGeo, wikipedia and missingmigrants

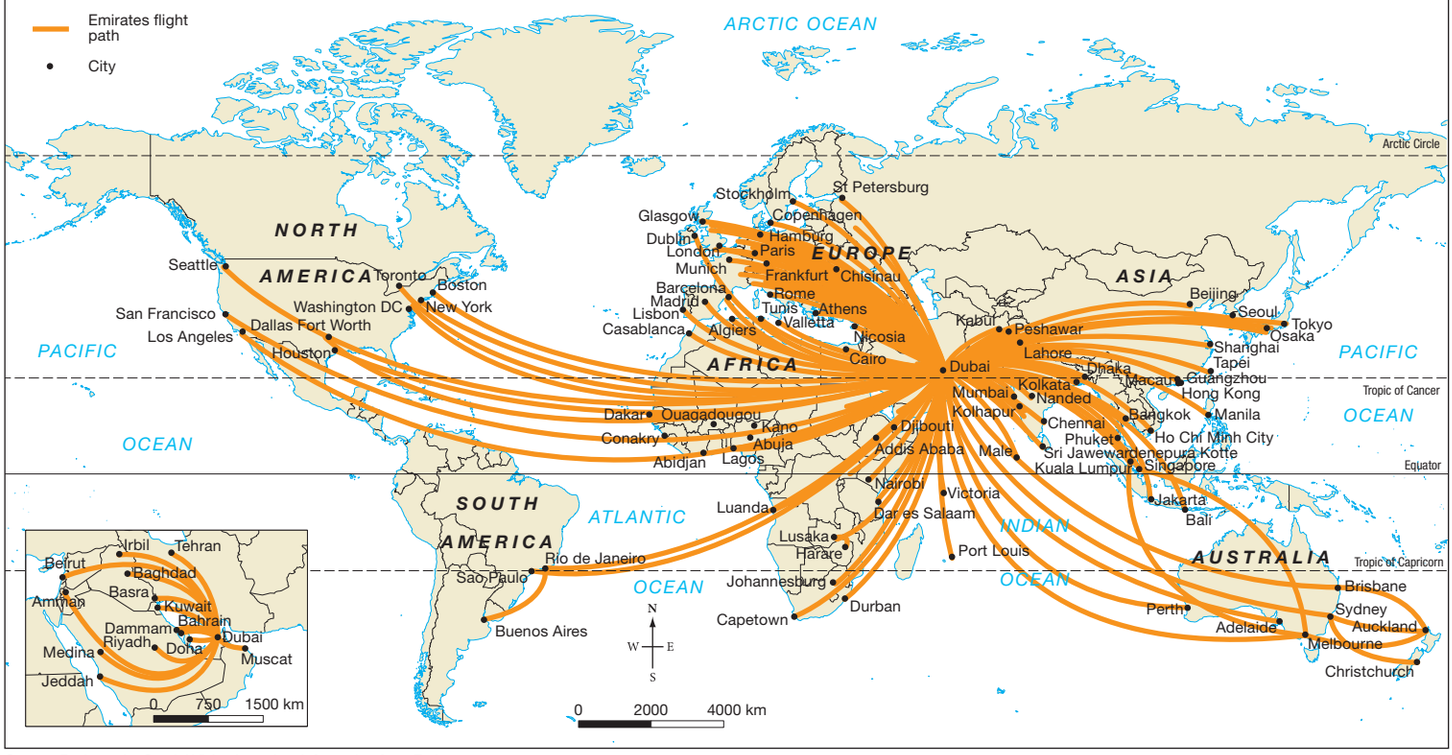
E GLOBAL HUMAN TRAFFICKING BY COUNTRIES OF ORIGIN AND DESTINATION, 2011



Source: Spatial Vision

Air connections

A EMIRATES AIRLINES ROUTE MAP, 2015

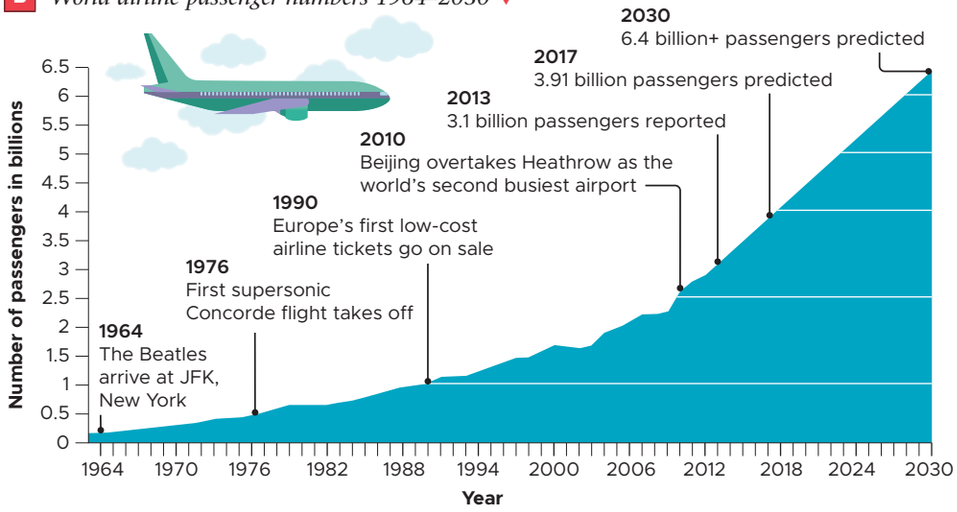


Source: Redrawn by Spatial Vision based on information from Emirates

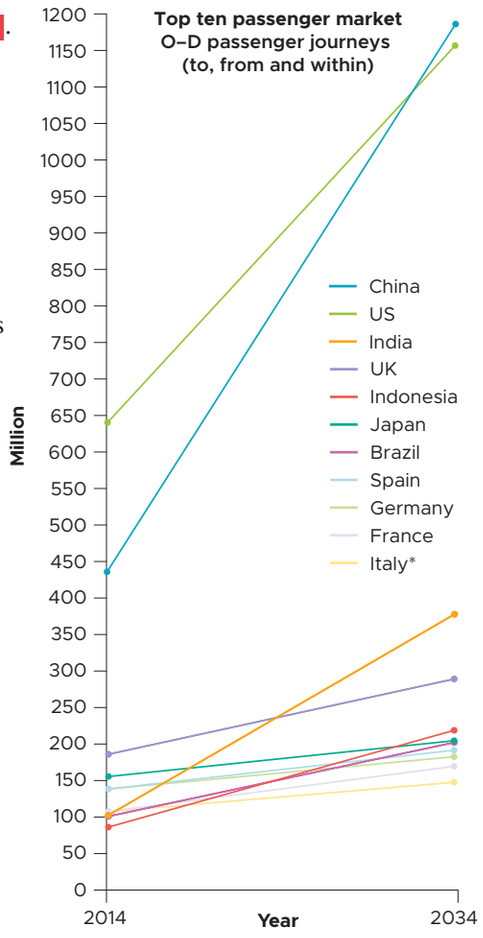
Air transport provides vital connectivity on national, regional and international scales. The extensive number of routes for just one airline, Emirates **A**, shows the enormous number of interconnections made. When you consider the major flight paths for all national and international airlines, the degree of interconnection is even more complex **D**. The number of airline passengers has increased exponentially over time and passenger numbers are expected to reach 6.4 billion by 2030 **B**. However, the source of passengers is expected to change. China is expected to overtake the United States as the world's largest passenger market (defined by traffic to, from and within) by 2029 **C**.

People are not the only goods carried by airlines. Although lower volumes of freight are carried by air than by sea (air cargo accounts for less than 1 per cent of world trade tonnage), 35 per cent of world trade by value is carried by air **E**. Goods transported by air are mainly high-value electronics products and perishable ones such as flowers. The air transport sector contributes around 2 per cent of global carbon dioxide emissions and 1.6 per cent of total greenhouse gas emissions contributing to climate change. Various strategies to reduce emissions from air transport are now being considered in an attempt to reduce the environmental impact of air transport **F**.

B *World airline passenger numbers 1964–2030* ▼

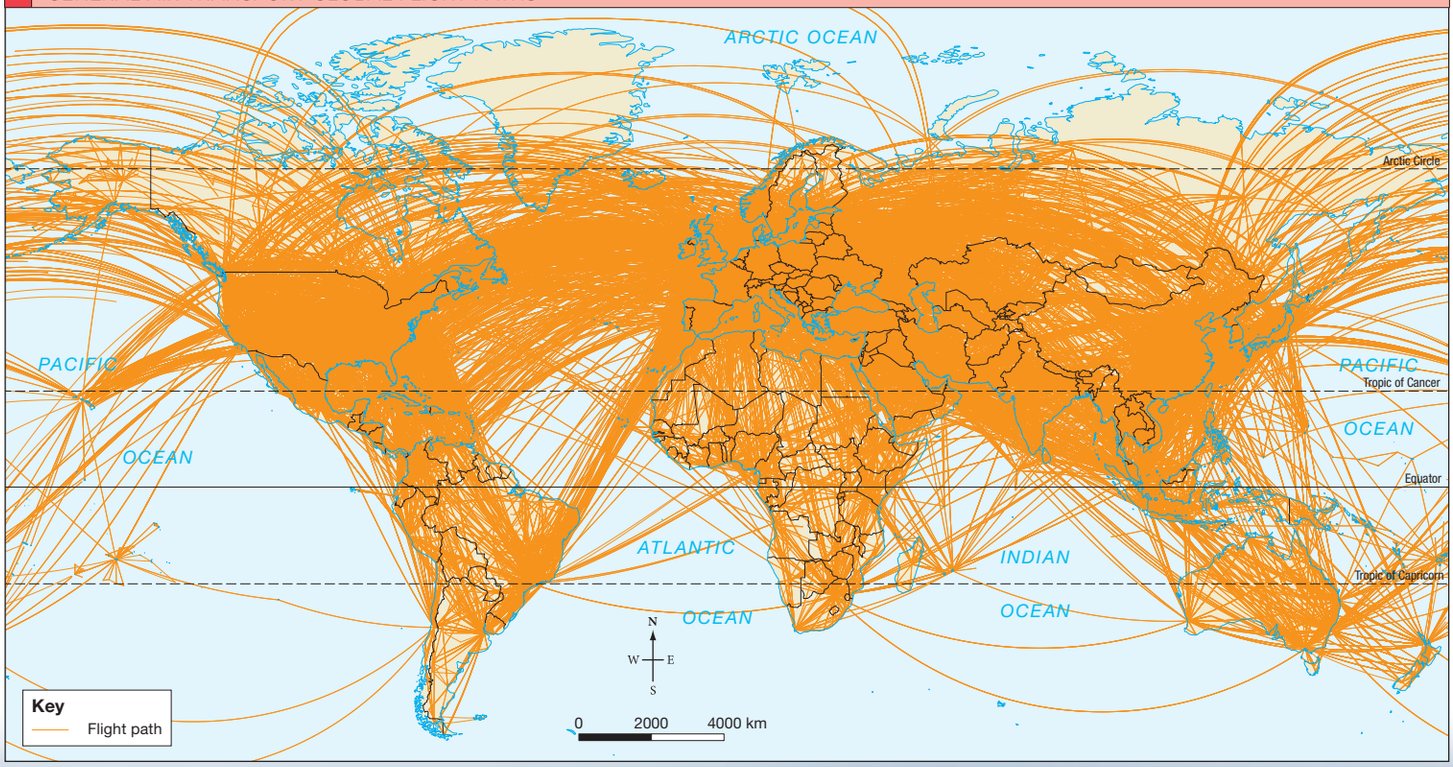


C *Top ten passenger markets, 2014 and 2034* ▼



*In top 10 for 2014 although expected to drop out by 2034.

D GENERAL AIR TRANSPORT GLOBAL FLIGHT PATHS



Source: Openflights.org

E *Loading freight on to a cargo plane* ▼



F *Strategies for reducing airline greenhouse gas emissions* ▼

CO_2 reductions: putting aircraft on a diet

For each 10 kg weight reduction about 4 tons of CO_2 can be avoided in one year

By reducing the number of teabags on a plane (1kg of CO_2 for one teabag) less fuel is used, which reduces the amount of CO_2 emitted

Wingtip devices can reduce CO_2 emissions by up to 6%

Replace paper manuals with tablets

Lightweight seats and trolleys

Lightweight paints

User preferred routes

Initiatives have been taken where the airline can select the most efficient route based on aircraft and weather conditions.

User preferred routes can save more than 30 tons of CO_2 on a single trans-Pacific flight

China's new Silk Road

From the second century BC to the end of the fourteenth century AD, a series of trade routes linked China to Europe across the Asian continent. The 'Silk Roads' as they were known (silk being one of China's main exports at the time) allowed for the exchange of goods, ideas and cultures.

Launched in 2014, China's 'One Belt, One Road' (OBOR) initiative is a complex, modern-day equivalent of the Silk Road. The aim is to interconnect trade, finance, infrastructure, finance and people across Eurasia. China now has the second largest economy in the world and OBOR is a way of sustaining this growth.

A network of roads, railways, pipelines and utility grids will link China to Europe through central Asia as a series of six 'Silk Road Economic Belts' (corridors) **A**.

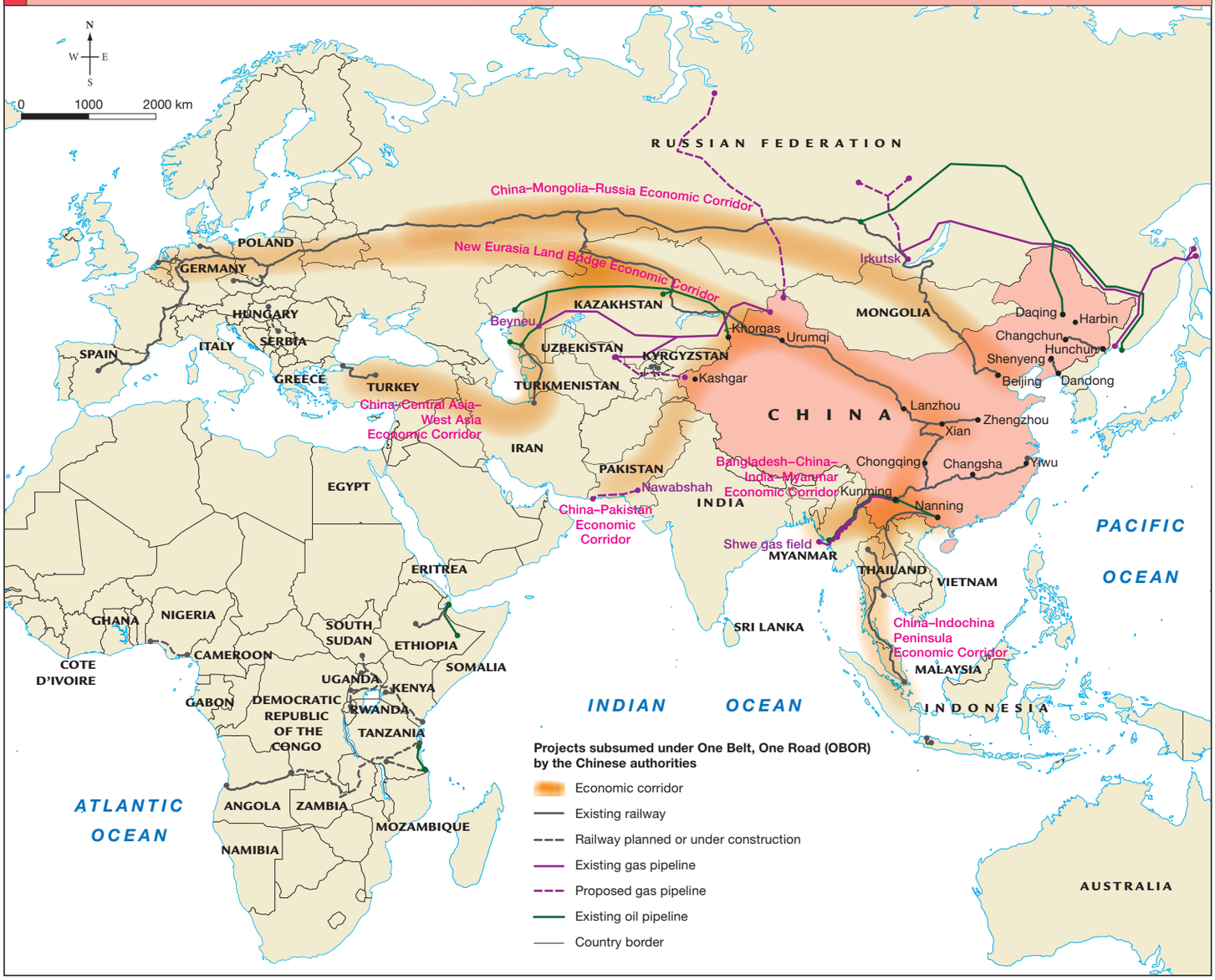
The 'Maritime Silk Road' will link China to Europe via ports in Asia and Africa **B**. China has already constructed 2233 km of rail and 3350 km of roads through various countries in Africa, improving their transport routes **C**. Chinese ports now account for seven of the 10 biggest ports in the world **D**.

China will become interconnected with 65 countries in Asia, Europe and Africa via these land and sea routes.

China has already constructed 20 000 kilometres of high speed rail (HSR), more than the rest of the world combined, and is now building cargo train lines. The rail network allows for goods to be moved across Eurasia three times faster than shipping and one-fifth cheaper than air transport. Iran is being developed as a major trading hub between China and Europe. Freight sent by train from eastern China through Kazakhstan and Turkmenistan takes only 14 days, compared to 45 days by ship.

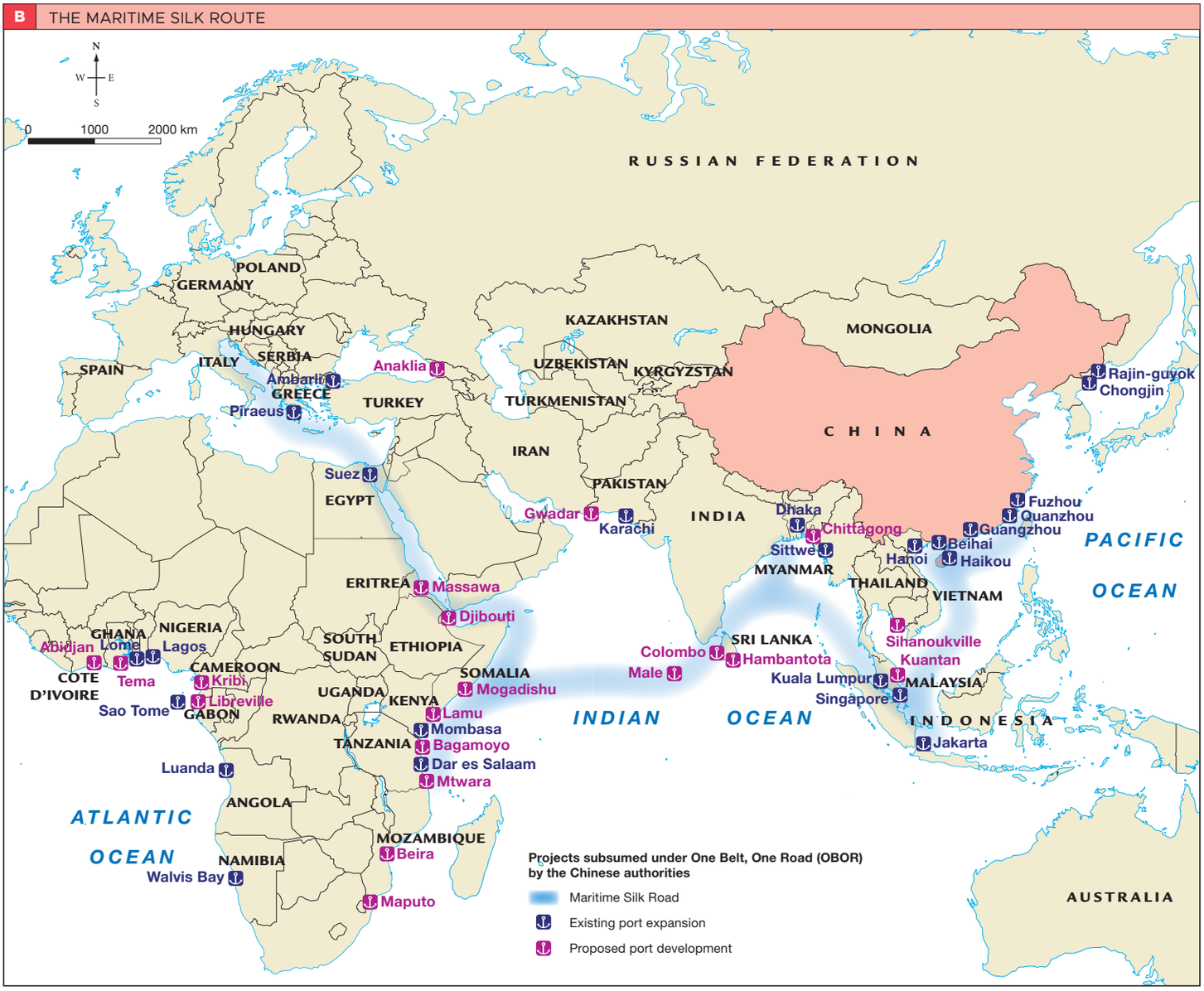
The network of pipes being constructed across Asia will enable the movement of oil from Kazakhstan (China owns 25 per cent of their oil production) and gas from Turkmenistan (China owns 50 per cent of their gas production). China has also signed agreements with Uzbekistan to trade in gas and uranium. This will all help improve China's energy security. To reduce its dependence on sea routes for importing oil from the Middle East, China is planning on building a $46 billion economic corridor (road, rail and pipe) through Pakistan to allow oil to be piped from the port of Gwadar on the Arabian Sea to south-west China **E**.

A THE SIX ECONOMIC BELTS LINKING CHINA TO EUROPE



Source: Redrawn by Spatial Vision based on information from Mercator Institute for China Studies and Hong Kong Trade Development Council

B THE MARITIME SILK ROUTE



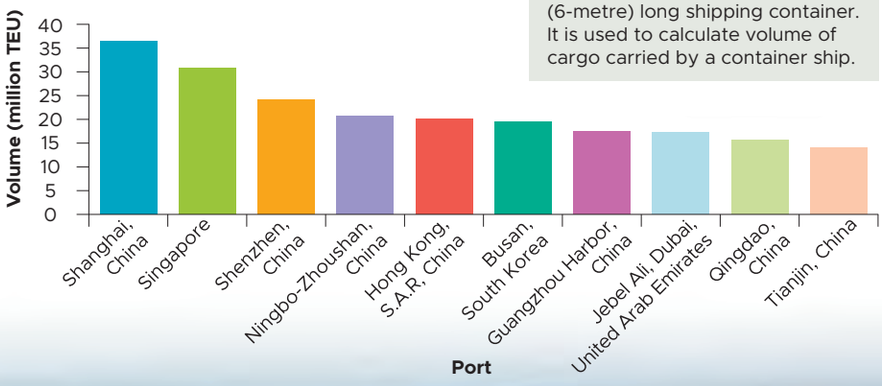
Source: Redrawn by Spatial Vision based on information from Mercator Institute for Chinese Studies

C *The new Chinese built and manned trains to run from Addis Ababa to the port of Djibouti, Ethiopia. Trains will take 10 hours to make the 750-km journey, compared to several days by road.* ▼



D *The world's 10 largest shipping ports, 2015* ▼

TEU refers to a standard 20-foot (6-metre) long shipping container. It is used to calculate volume of cargo carried by a container ship.



E *The fishing port of Gwadar, Pakistan, which is to be developed as a major transport hub connecting the Arabian Sea to inland China as part of the OBOR initiative.* ▼

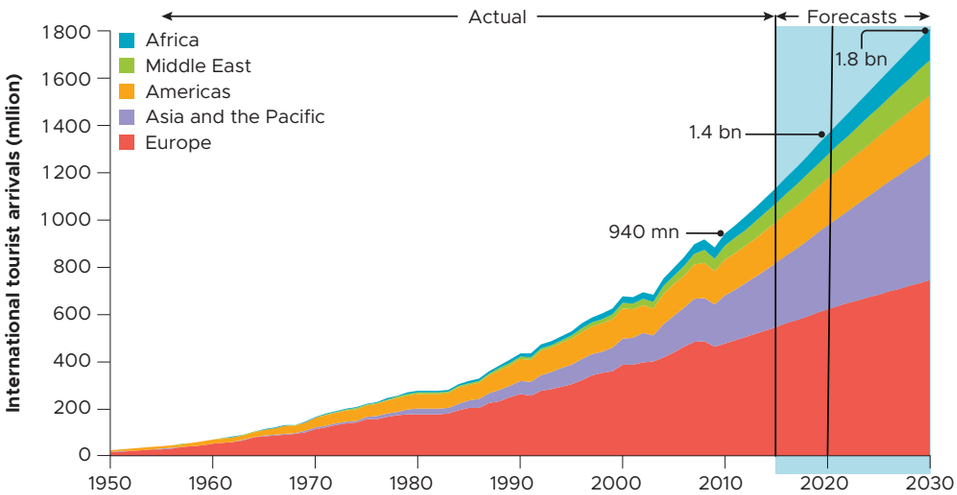


Tourism

Tourism involves people travelling to and staying in places outside their usual environment for more than 24 hours, but not for more than one consecutive year. Tourism has emerged as one of the world's largest and most rapidly growing industries A F. It generated around US$1260 billion in receipts for transport, food, accommodation, entertainment and shopping. This is the result of increased leisure time, higher disposable incomes, improved technology that moves more people faster and further, together with organised facilities such as hotels and resorts. In 2015, 1186 million tourists crossed international boundaries A.

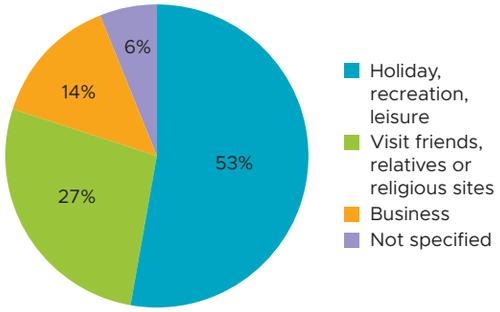
The world's more affluent populations have generated the top international spenders D, as well as the top destinations C as more people continue to travel for leisure, business and meeting up with friends or relatives B. These mass movements of people can bring significant changes to the destinations to which they travel, although these changes are not always beneficial ones.

A *International tourist arrivals by region, 1950–2030* ▼

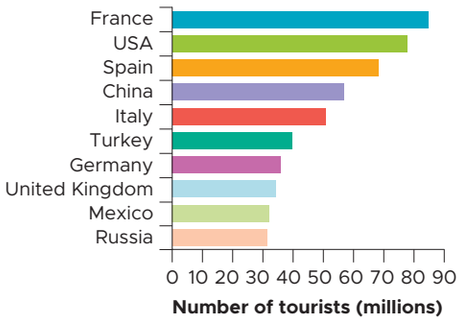


Source: World Tourism Organization (UN WTO)

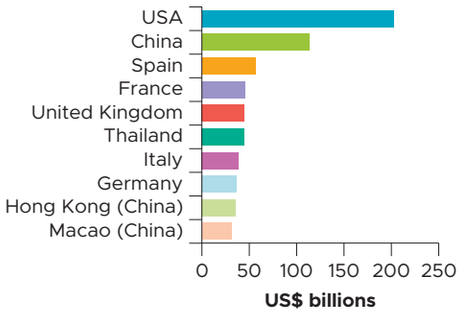
B *Why tourists travel* ▼



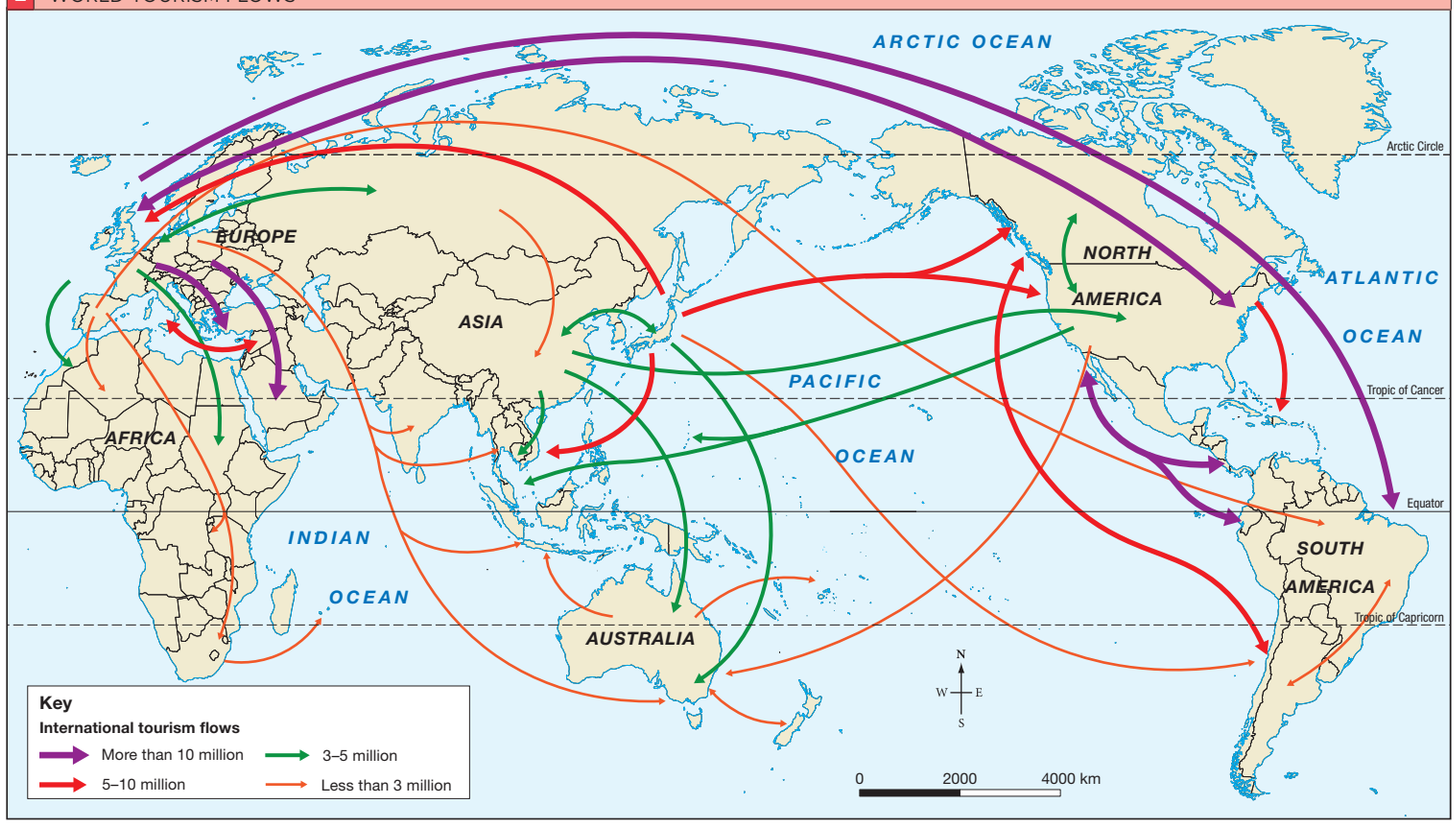
C *Top 10 international tourist destinations, 2015* ▼



D *Top 10 international tourist earners, 2015* ▼

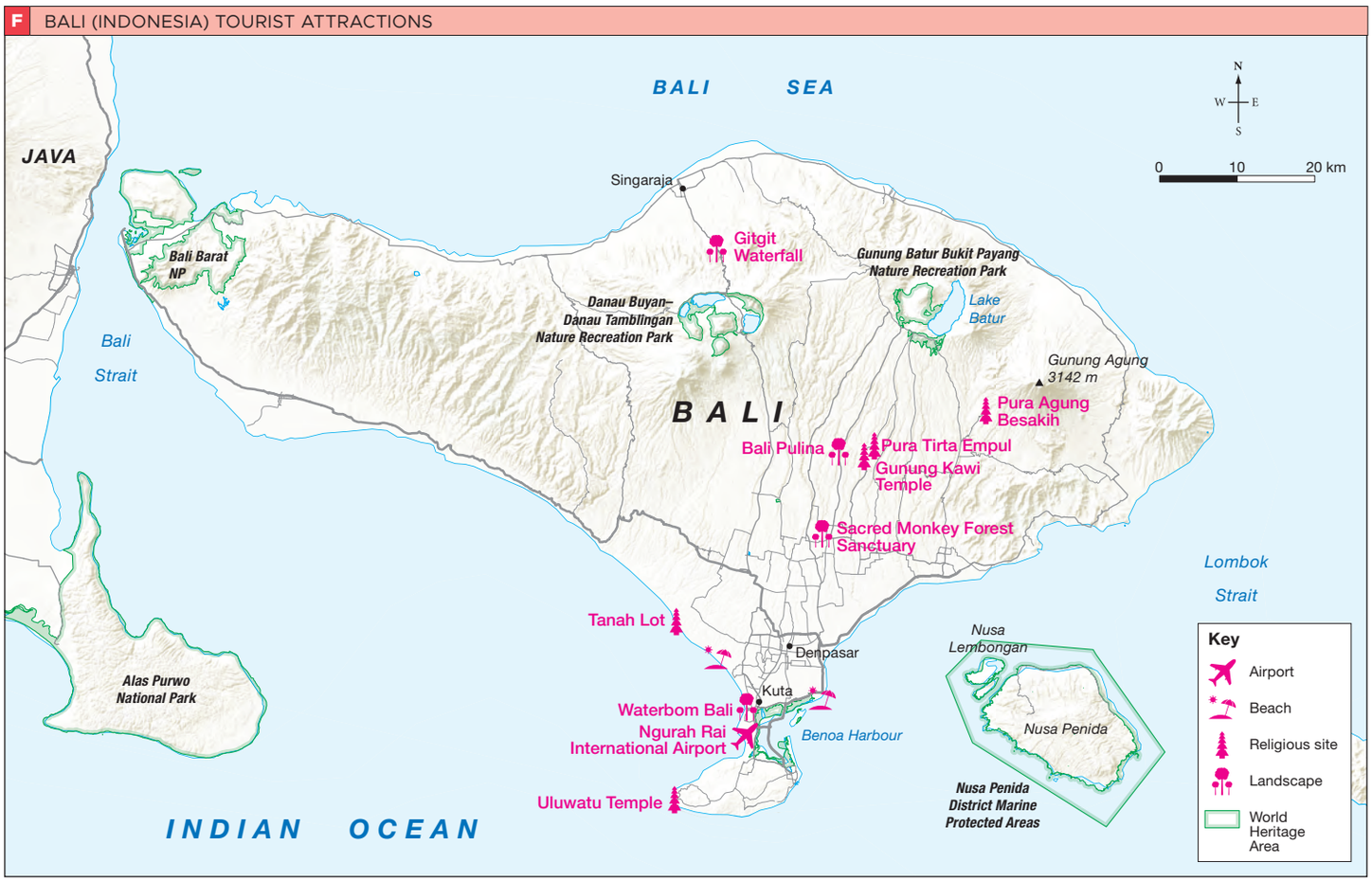


E WORLD TOURISM FLOWS



Source: Spatial Vision

F BALI (INDONESIA) TOURIST ATTRACTIONS



Source: © OpenStreetMap contributors

Tourists spend money that, in turn, generates employment directly in accommodation, food, entertainment, transport and banking. Successful tourist destinations such as Paris **G**, which has averaged over 50 million tourists a year this century, has developed infrastructure including airports and rail terminals, venues for shopping and galleries that can manage tourist numbers as well as serve local populations. A downturn in numbers because of rival destinations or civil unrest can prompt new tourism investment.

Less economically developed destinations such as Vietnam **H** attract tourists from wealthier regions of the world who aim to enjoy different scenery, cultures and history. At times the customs and values of tourists may differ markedly from local ones, giving rise to dislike of visitors. Tourist shows of staged culture, photographing poverty and ignoring sensitive dress codes can be regarded as offensive by some local populations.

G *A Parisian café: a must-see and must-experience for visitors* ▼



H *Cyclo travel in Hanoi (Vietnam) for foreign tourists* ▼

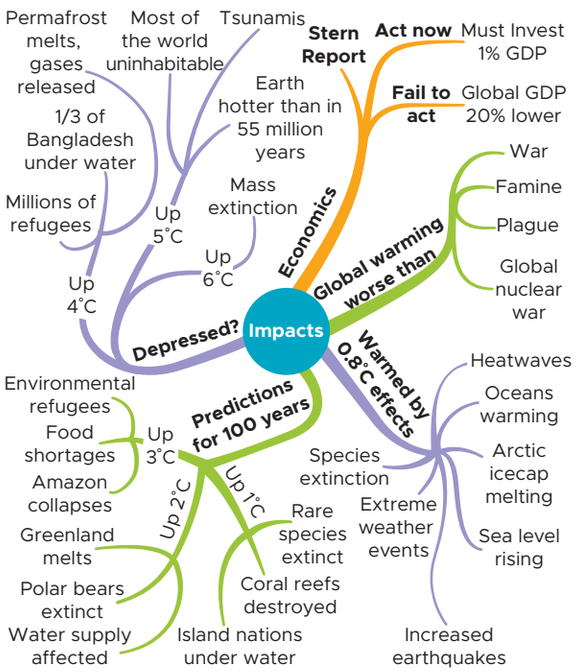


Consequences of climate change

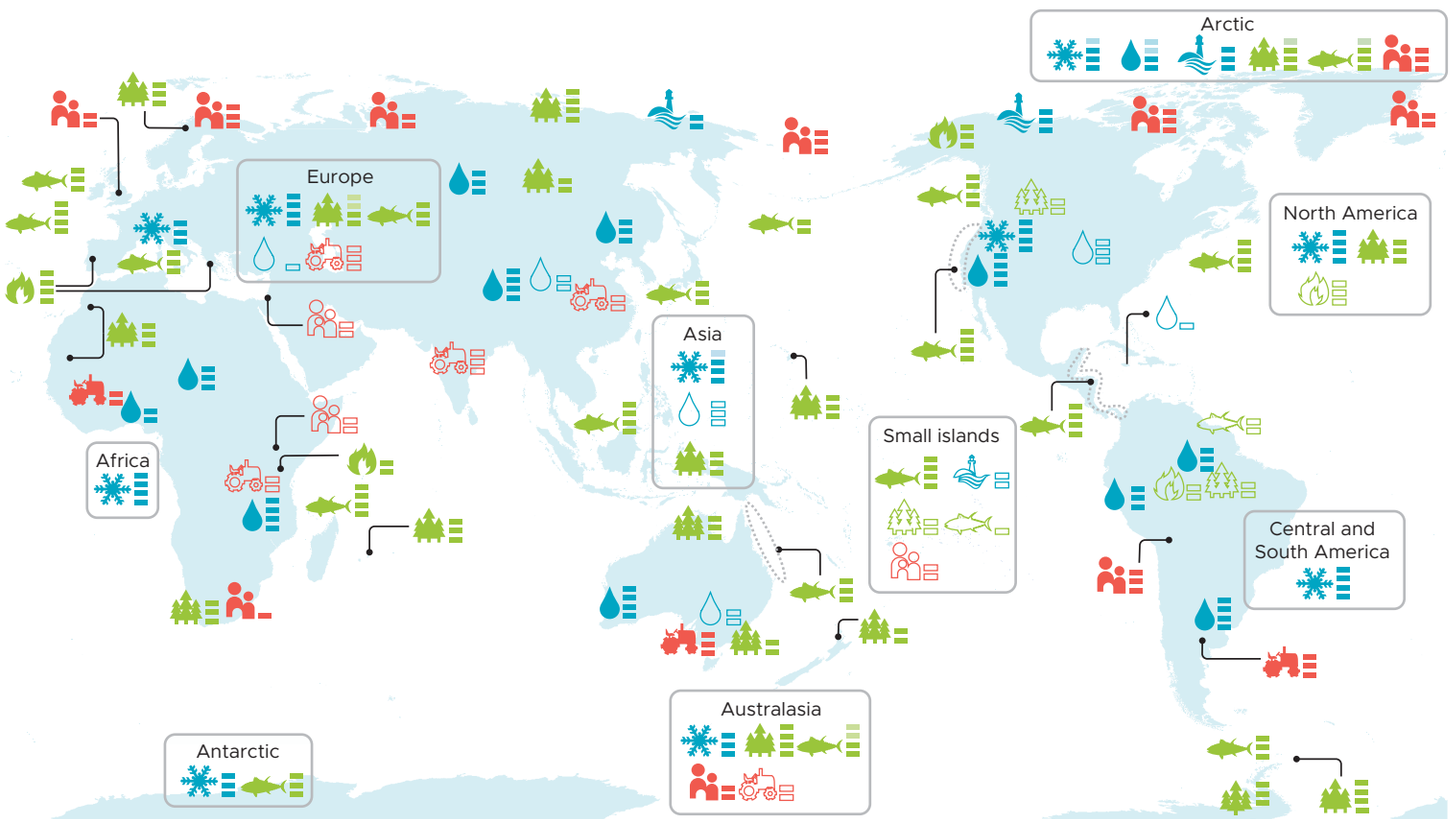
The 2014 Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report indicated that warming of the atmosphere and ocean system is 'unequivocal' (without doubt) and that there is clear evidence of human influence on the climate. There are a variety of potential impacts of climate change **A**. The IPCC report documents the current impacts on natural and human systems **B**.

In 2016, a number of events, occurring at different scales, illustrated the various impacts of climate change. Globally, it was the hottest year on record, setting a new high for the third year in a row. Regionally, many countries in Africa suffered their worst droughts in decades, reflecting changes in annual rainfall totals **C**. As a result, the UN estimated that roughly 6 million people in Somalia, northern Kenya, southern Ethiopia and South Sudan were in need of aid. Record high ocean temperatures have caused widespread coral bleaching on Australia's Great Barrier Reef and in Pacific Ocean nations such as Samoa **D**. The extent of sea ice continued to contract and the majority of the world's glaciers, such as Alaska's Columbia Glacier **E**, retreated further. Sea level rise has increased to 3.4 mm per year and at least five reef islands in the remote Solomon Islands, located north-east of Australia, were lost completely to sea-level rise and coastal erosion, and a further six islands were severely eroded **F**. Hurricane Matthew, which occurred in the Western Atlantic in October 2016, was a Category 4–5 cyclone that lasted for 102 hours, which is the longest time a hurricane of such high intensity has been sustained in eastern Caribbean history. All these events pose risks for human and natural systems and challenge sustainability.

A *Potential impacts of climate change*



B GLOBAL PATTERNS OF IMPACTS IN RECENT DECADES ATTRIBUTED TO CLIMATE CHANGE



Confidence in cause of climate change

very low — low — med — high — very high

] indicates confidence range

Impacts of climate change

Physical systems
- Glaciers, snow, ice and/or permafrost
- Rivers, lakes, floods and/or drought
- Coastal erosion and/or sea level effects

Biological systems
- Terrestrial ecosystems
- Wildfire
- Marine ecosystems

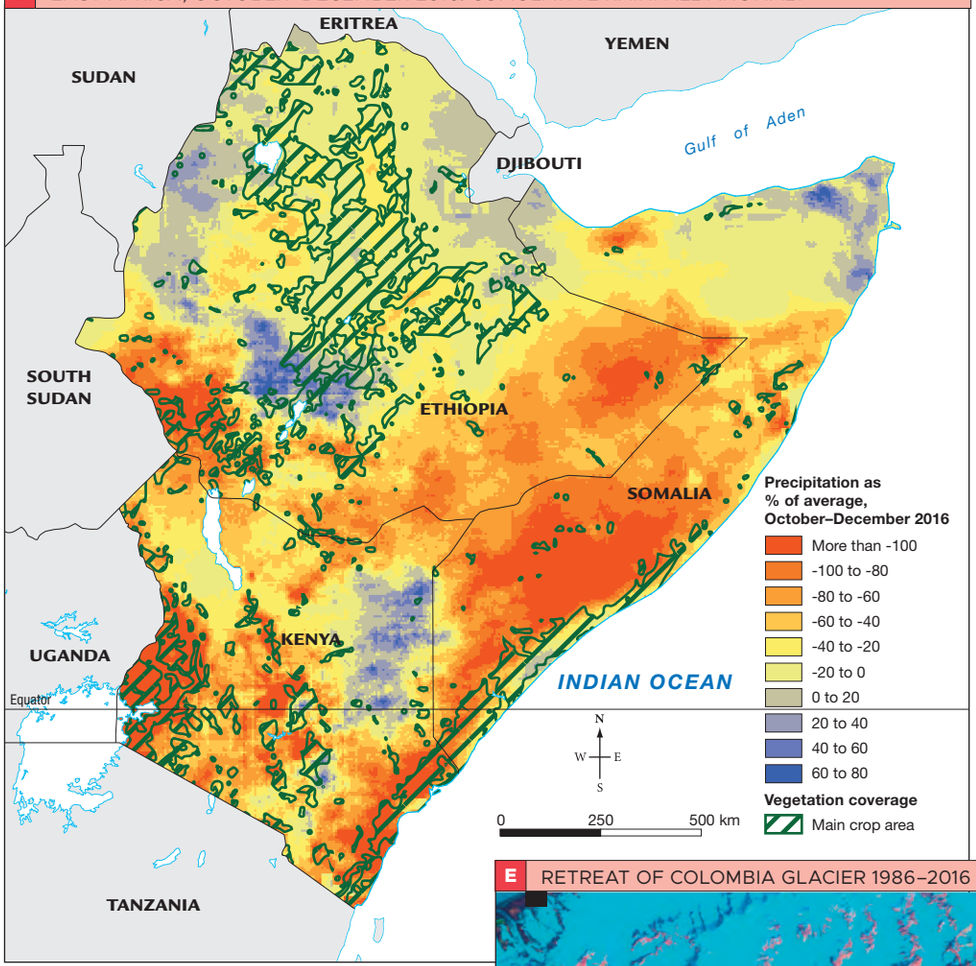
Human and managed systems
- Food production
- Livelihoods, health and/or economics

Regional-scale impacts

Hollow symbols = Minor contributor to climate change

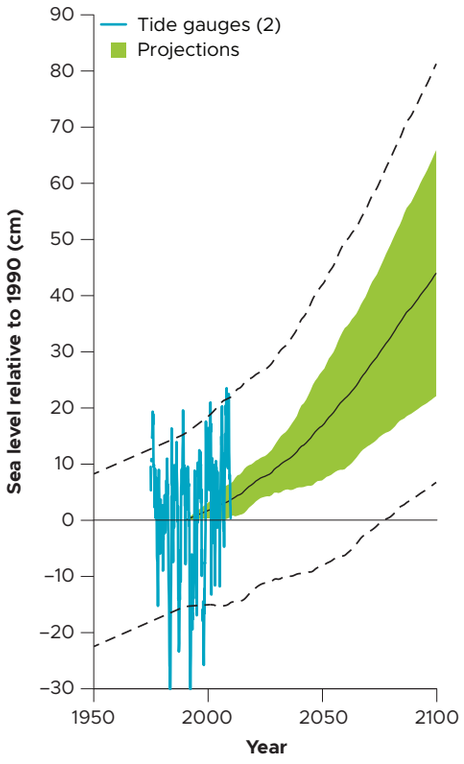
Filled symbols = Major contributor to climate change

C EAST AFRICA, OCTOBER–DECEMBER 2016: CUMULATIVE RAINFALL ANOMALY



Source: Chris Funk, Pete Peterson, Martin Landsfeld, Diego Pedreros, James Verdin, Shraddhanand Shukla, Gregory Husak, James Rowland, Laura Harrison, Andrew Hoell & Joel Michaelsen

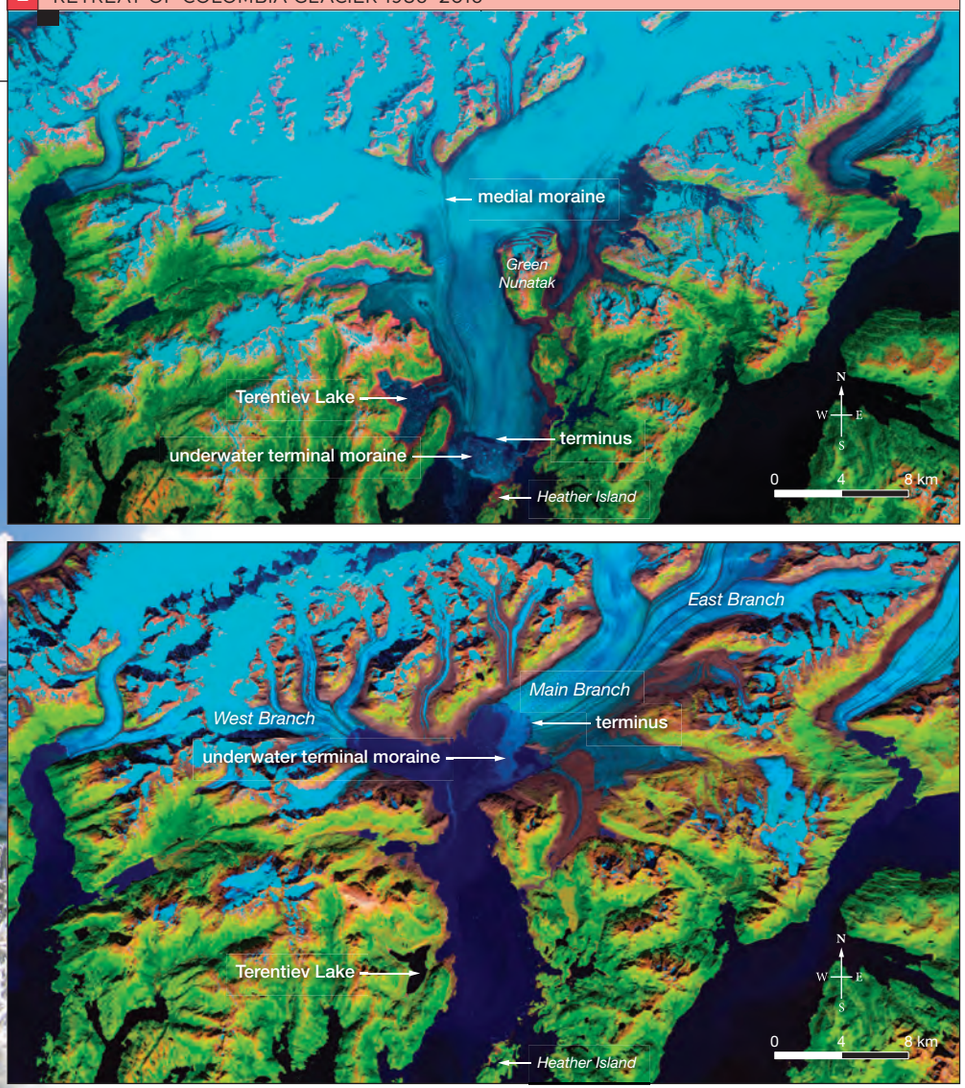
F *Observed and projected relative sea level change in the Solomon Islands* ▼



D *Coral bleaching in Samoa, December 2014 to February 2015* ▼



E RETREAT OF COLOMBIA GLACIER 1986–2016



Source: NASA Earth Observatory

The Poles

There is evidence of the impact of climate change in polar regions. The Antarctic and Greenland **A** ice sheets have continuously lost mass as they melt due to rising temperatures. In 2016, Arctic sea ice declined to the lowest annual average extent on record **B**, and Antarctic sea ice to the second lowest extent on record.

Polar regions of the world have a significant impact on the Earth's climate system. Snow and ice reflect heat from the sun, helping to regulate our planet's temperature. The cold, salty water formed in the polar areas drives ocean circulation that redistributes heat around the planet. A decrease in the formation of sea ice and addition of water from melting ice sheets could create a positive feedback loop and modify ocean circulation, as well as increase the amount of solar radiation that Earth's surface absorbs. This could accelerate climate change and create more severe weather patterns **C**.

Warming of the polar permafrost (frozen soil) also releases carbon dioxide and methane, which are greenhouse gases. Currently the West Antarctic Peninsula is one of the fastest warming areas on Earth, with only some areas of the Arctic Circle experiencing faster rising temperatures. An enormous crack in the ice shelf known as Larsen C, one of the continent's largest ice shelves, has grown by about 80 kilometres since 2011 and has widened to well over 300 metres. As the shelf loses mass **D**, these glaciers could flow more quickly, which would contribute to rising sea levels. Without scientific research, information on the rate of environmental change and impacts would not be available.

A GREENLAND ICE SHEET MELT: NUMBER OF MELT DAYS, JANUARY 1–OCTOBER 31, 2016



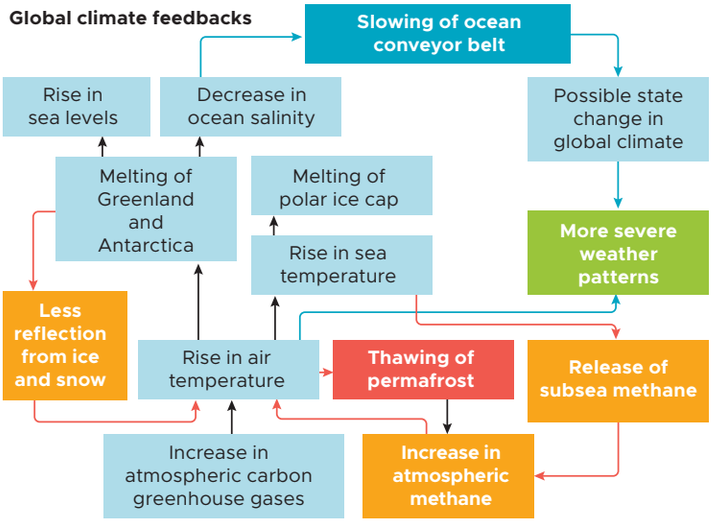
Source: National Snow and Ice Data Center

B ARCTIC SEA ICE EXTENT, NOVEMBER 2016

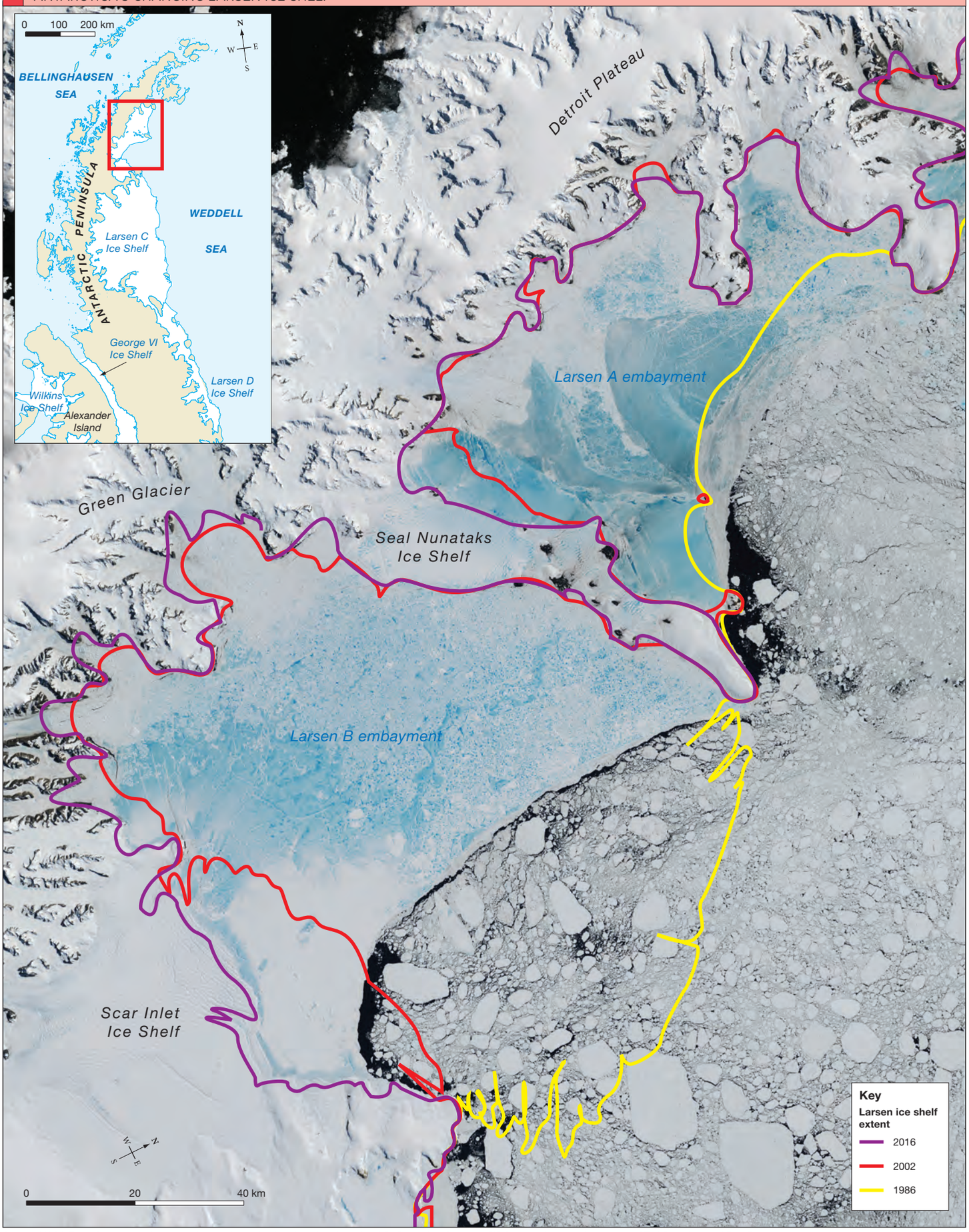


Source: National Snow and Ice Data Center

C *Climate change amplification* ▼



D ANTARCTICA'S CHANGING LARSEN ICE SHELF



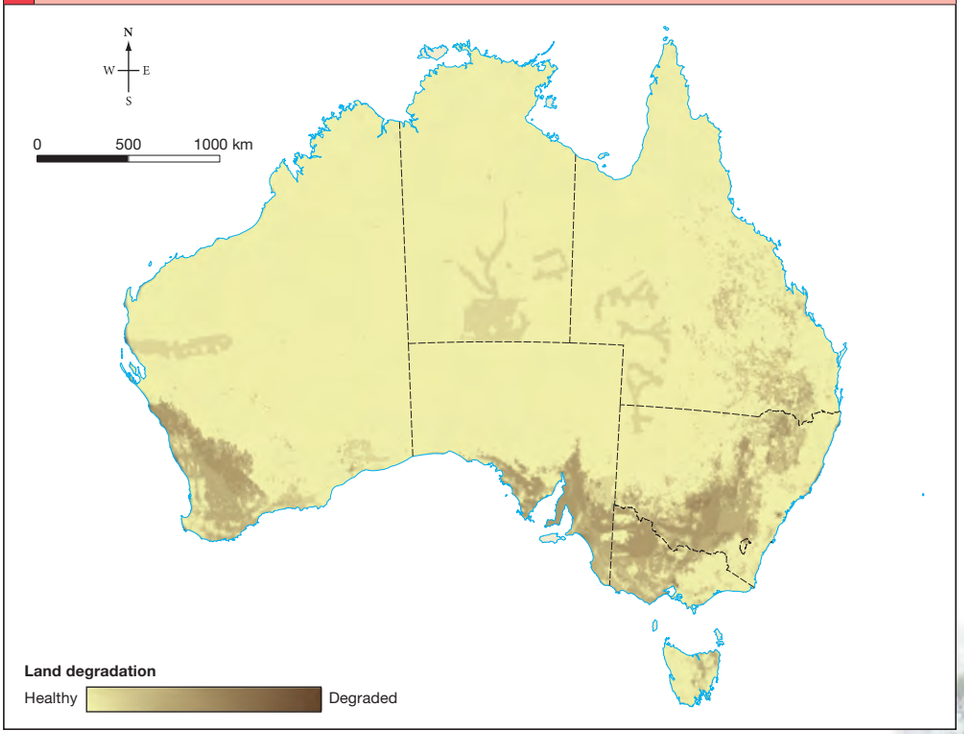
Source: NASA Earth Observatory image by Jesse Allen, using Landsat data from the U.S. Geological Survey. NSIDC aerial photograph courtesy of Ted Scambos and Rob Bauer

Land degradation in Australia

Land degradation is disturbance to the land, which is undesirable as it causes a decline in soil quality. Since early European settlement in the 1800s, people have had a human-centred view of the environment and considered humans to be the most important species. This world view led to unsustainable land practices and increased the rate of land degradation A. Extensive areas of Australia's native vegetation were removed, mainly for farming B. This made the land susceptible to erosion either by wind or water; frequently both these agents of erosion combined to cause land degradation. Wind erosion can carry soil far from its source C. Water erosion can occur in the form of sheet, rill, gully or channel erosion.

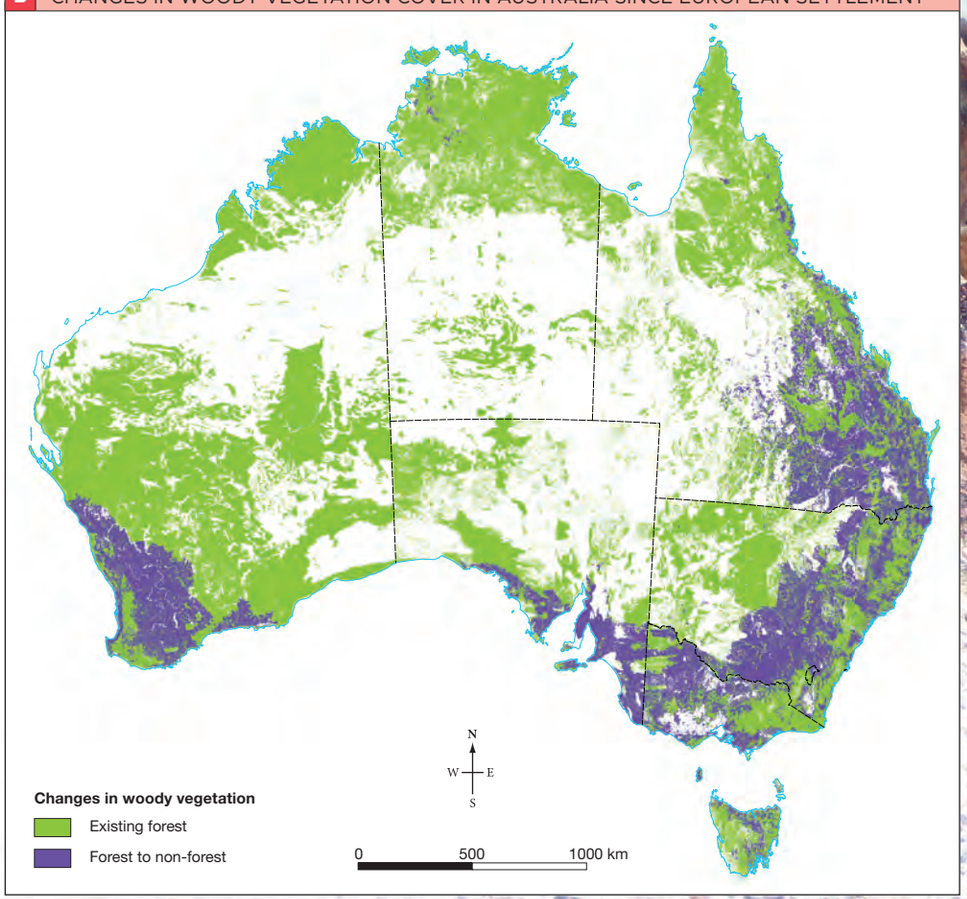
In recent decades, there have been significant changes in farming methods that have increased the capacity to produce agricultural products with reduced impacts on the land. Now farmers have a more life-centred view of the world and recognise that they have a responsibility to use the land more sustainably. They are aware of practices that protect the land and minimise land degradation. Across Australia, the National Landcare Programme supports sustainable land management practices to deliver long-term benefits to the environment. In the past five years, land-clearing rates have stabilised in all states and territories, except Queensland.

A LAND DEGRADATION IN AUSTRALIA



Source: © 2016 Elsevier B.V., Robert Costanza, Crawford Administration, CAP Crawford School of Public Policy, The Australian National University

B CHANGES IN WOODY VEGETATION COVER IN AUSTRALIA SINCE EUROPEAN SETTLEMENT



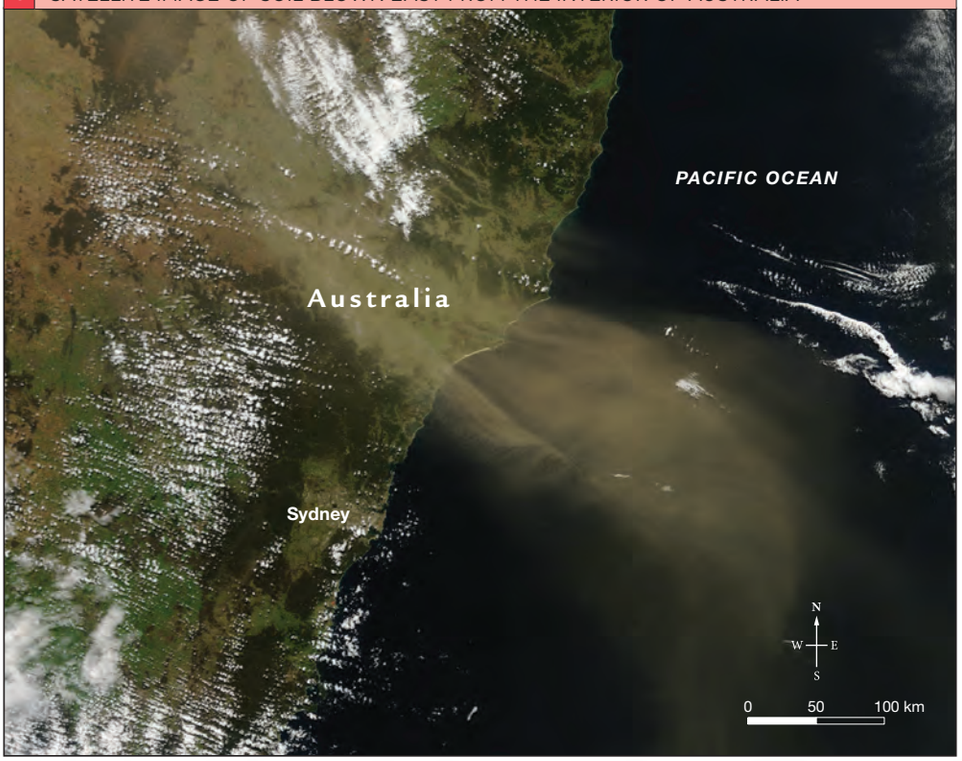
Source: © Commonwealth of Australia, Department of the Environment and Energy, 2016



The Parwan Valley, located 60 kilometres west of Melbourne near Bacchus Marsh, contains some of the most severe sites of water erosion in Victoria. The area was first settled in the 1870s and soon after began to suffer the consequences of land clearing and the introduction of rabbits. The landscape today has limited tree cover, with a high incidence of various forms of land degradation, including landslides, and tunnel and gully erosion. Various treatments have been tried at the site including revegetation with trees and native pastures, as well as rabbit control. Evidence of continued major erosion occurring on the site still remains **E** **F**.

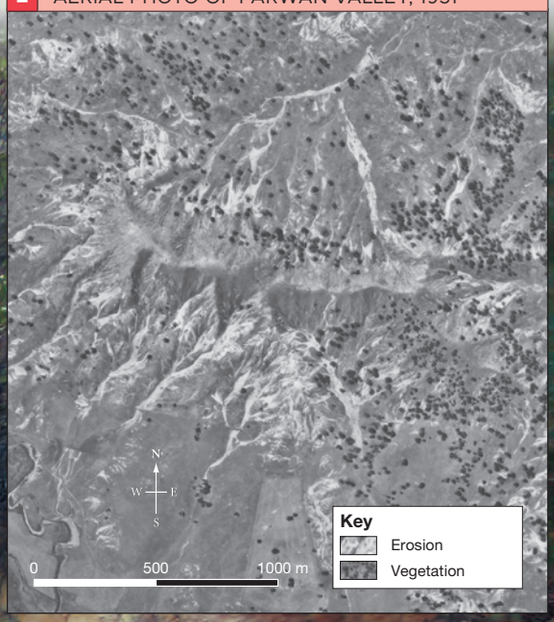
D *Gully erosion has continued occurring despite attempts to control erosion in the Parwan Valley.* ▼

C SATELLITE IMAGE OF SOIL BLOWN EAST FROM THE INTERIOR OF AUSTRALIA



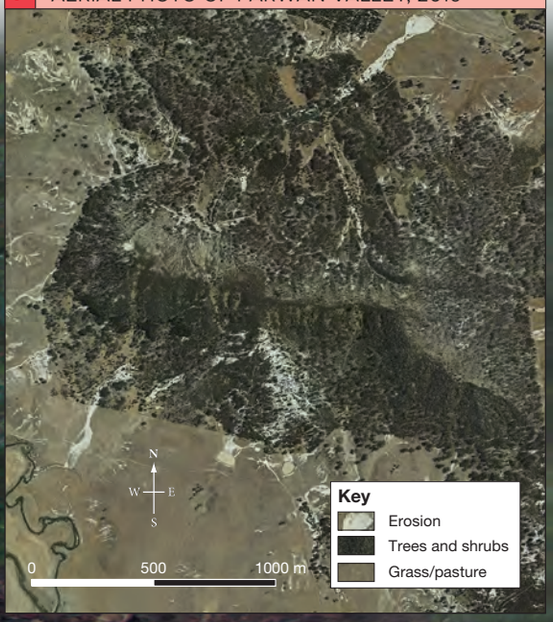
Source: NASA

E AERIAL PHOTO OF PARWAN VALLEY, 1951



Source: © Commonwealth of Australia

F AERIAL PHOTO OF PARWAN VALLEY, 2016



Source: Department of Environment, Land, Water and Planning, 2013

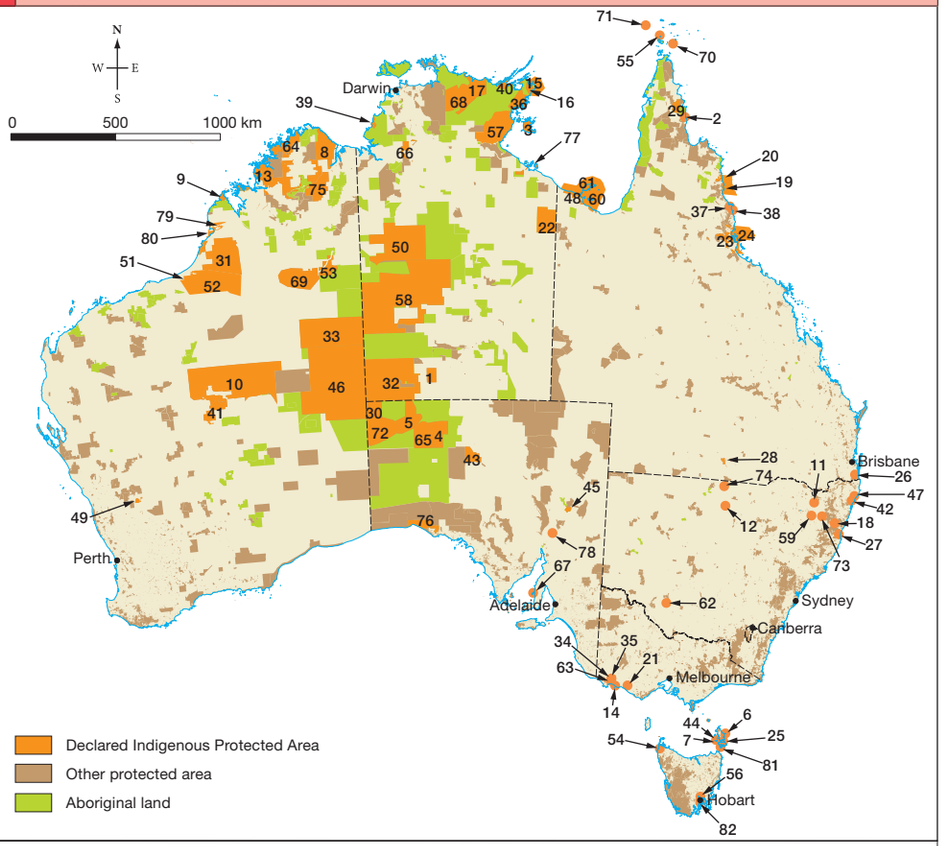
Indigenous Protected Areas, Australia

An Indigenous Protected Area (IPA) is an area of Aboriginal-owned land or sea where traditional owners are dedicated to conserving cultural resources, biodiversity and managing the land. Some of the country's rarest and most fragile environments are now protected in these special areas. In all, 72 IPAs are distributed across the country, covering 64 million hectares **A**.

IPAs are usually managed by Indigenous rangers using a combination of traditional Indigenous knowledge and modern Western science. The types of management activities range from environmental managing to the protection of cultural sites.

The East Trinity Reserve, Mandingalbay Yidinji IPA (37 **A**), was an important freshwater and saltwater wetland. Over time, the clearing of native vegetation for sugarcane production and grazing led to severe habitat degradation, including changes in aquatic species and the deaths of fish and shellfish. Soil disturbances resulted in the destruction of wetlands.

A INDIGENOUS PROTECTED AREAS



1	Angas Downs	29	Kaanju Ngaachi	57	South-East Arnhem Land
2	Angkum - Stage 1	30	Kalka - Pipalyatjara	58	Southern Tanami
3	Anindilyakwa	31	Karajarri	59	Tarriwa Kurrukun
4	Antara - Sandy Bore	32	Katiti Petermann	60	Thuwathu/Bujimulla
5	Apara - Makiri - Punti	33	Kiwirrkurra	61	Thuwathu/Bujimulla
6	Babel Island	34	Kurtonitj	62	Toogimbie
7	Badger Island	35	Lake Condah	63	Tyrendarra
8	Balanggarra	36	Laynhapuy — Stage 1	64	Uunguu
9	Bardi Jawi	37	Mandingalbay Yidinji	65	Walalkara
10	Birriliburu	38	Mandingalbay Yidinji	66	Wardaman
11	Boorabee and The Willows	39	Marri-Jabin (Thamurrurr — Stage 1)	67	Wardang Island
12	Brewarrina Ngemba Billabong	40	Marthakal	68	Warddeken
13	Dambimangari	41	Matuwa and Kurrara-Kurrara	69	Warlu Jilajaa Jumu
14	Deen Maar	42	Minyumai	70	Warraberalgal and Porumalgal
15	Dhimurru	43	Mount Willoughby	71	Warul Kawa
16	Dhimurru	44	Mt Chappell Island	72	Watarru
17	Djelk	45	Nantawarrina	73	Wattleridge
18	Dorodong	46	Ngaanyatjarra	74	Weilmoringle
19	Eastern Kuku Yalanji	47	Ngunya Jargoon	75	Wiliinggin
20	Eastern Kuku Yalanji	48	Nijinda Durlga	76	Yalata
21	Framlingham Forest	49	Ninghan	77	Yanyuwa (Barni - Wardimantha Awara)
22	Ganalanga-Mindibirrina	50	Northern Tanami	78	Yappala
23	Girringun	51	Nyangumarta Warrarn	79	Yawuru
24	Girringun	52	Nyangumarta Warrarn	80	Yawuru
25	Great Dog Island	53	Paruku	81	Iungatalanana
26	Guanaba	54	Preminghana	82	putalina
27	Gumma	55	Pulu		
28	Jamba Dhandan Duringala	56	Risdon Cove		

Source: © Commonwealth of Australia, Department of the Environment and Energy, 2017. © Commonwealth of Australia , Geoscience Australia, 2006. Collaborative Australian Protected Areas Database — CAPAD 2014 © Commonwealth of Australia, Department of the Environment, 2014. Australian Land Tenure 1993: © Commonwealth of Australia, Geoscience Australia, 1993 State and Territory Borders: © Commonwealth of Australia, Geoscience Australia, 2004

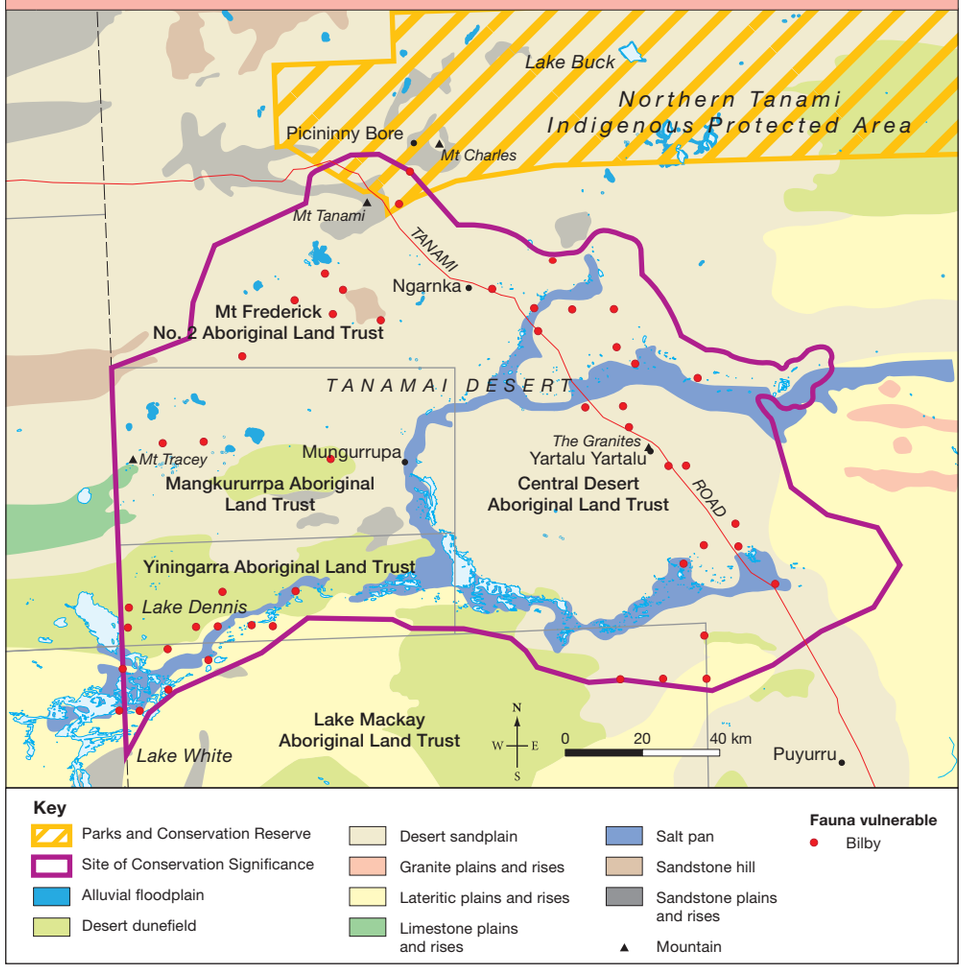
B *Feral pigs forage underwater for aquatic plants, making lagoons and creeks muddy, and changing aquatic habitats. Local rangers build traps to capture the pigs.* ▼



C *Warlpiri rangers work to protect endangered species such as the bilby. This species was a valuable food source in the past and is culturally important to many Aboriginal people.* ▼



D COMPLEX SETS OF DATA CAN BE REPRESENTED ON MAPS LIKE THIS MAP OF THE SOUTH-WEST TANAMI DESERT, WHICH SHOWS SITES OF CONSERVATION SIGNIFICANCE AND LOCATIONS WHERE THE BILBY IS VULNERABLE.



Source: NT Department of Natural Resources, Environment, The Arts and Sport

Remediation (repair) of the land has resulted in re-emergence of mangrove ecosystems and an improvement in the health of fish stocks and other aquatic species. Indigenous rangers assisted in the rehabilitation of the land by spraying and burning weeds and trapping feral pigs **B**. Restoration has allowed traditional owners to use the area again for sustainable food gathering and cultural purposes.

The Southern Tanami IPA (58 **A**) contains sites critical to the survival of threatened species such as the bilby **C**. Rangers help manage bilby populations through fire management work, and by monitoring populations through traditional tracking **D**. Numbers of threatened species can be tracked over time and rangers can be given advice on where to concentrate efforts to remove threats such as feral cats.

Younger rangers learn from elders about patch burning (controlled burning of small patches in a mosaic pattern), designed to rejuvenate country and reduce wildfires. They also work with scientists, using satellite imagery and helicopters to burn remote areas **E**.

E *Patch burning is an effective method of reducing the threat of summer wildfires.* ▼



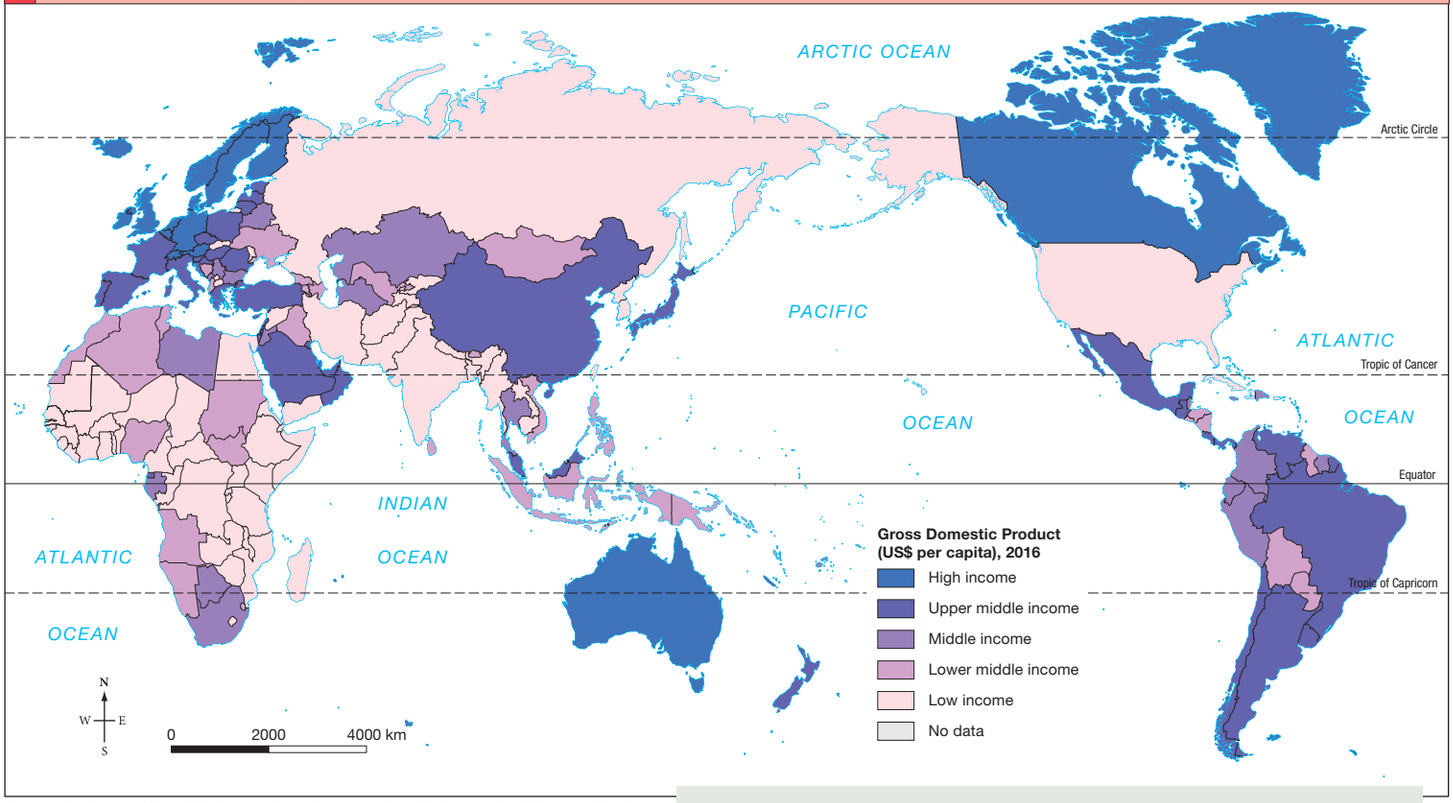


Wellbeing

World

Wellbeing is a measurement of not only economic progress, but quality of life. While income A has a strong correlation to health B, it is not the only factor that determines wellbeing in a country. The Human Development Index D provides an overview of wellbeing by taking into account the Gross Domestic Product (GDP), life expectancy and money spent on

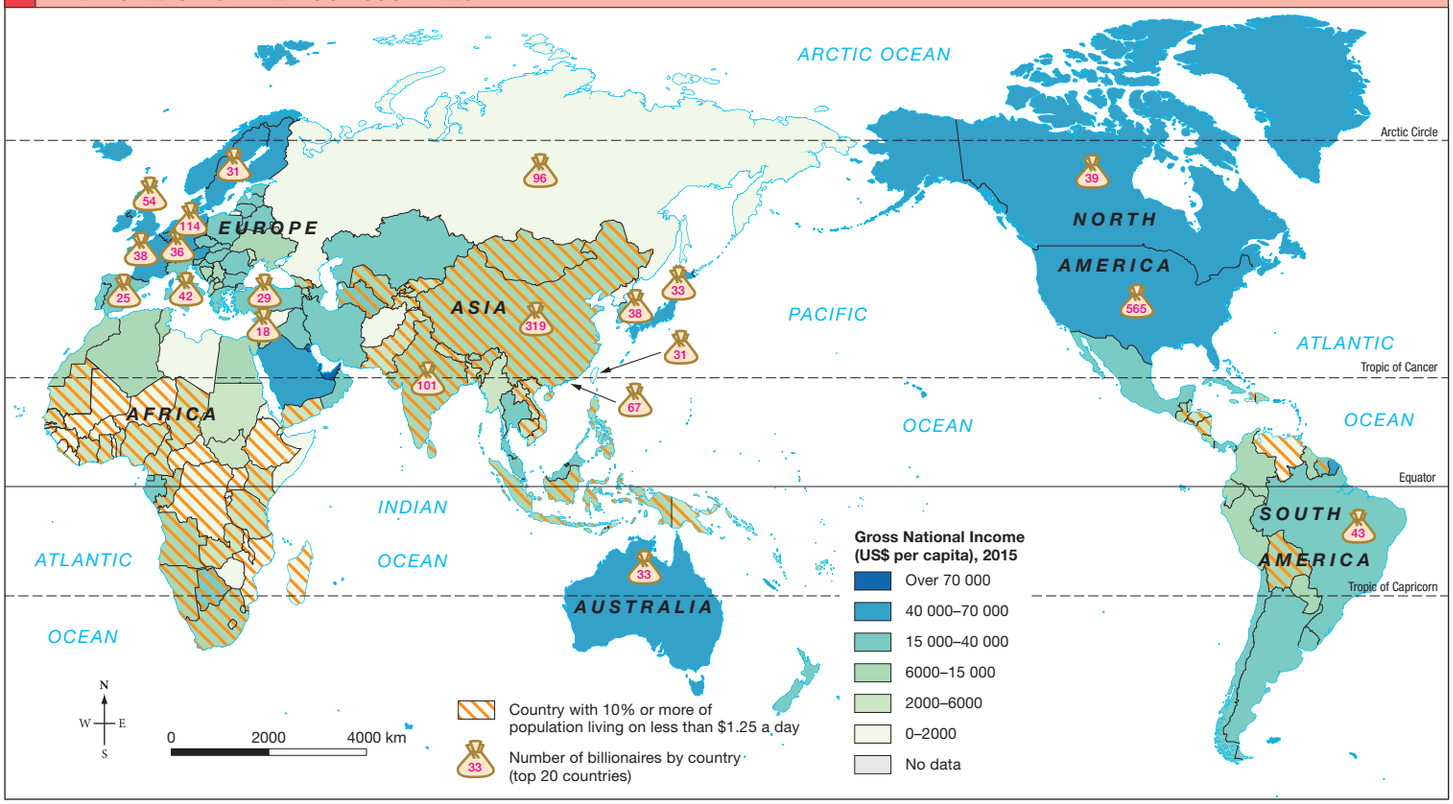
A WORLD GDP PER CAPITA, 2016



Source: Redrawn by Spatial Vision based on information from The International Monetary Fund

Gross Domestic Product (GDP) is the value produced within a country's borders, whereas the Gross National Income (GNI) is the value produced by all citizens.

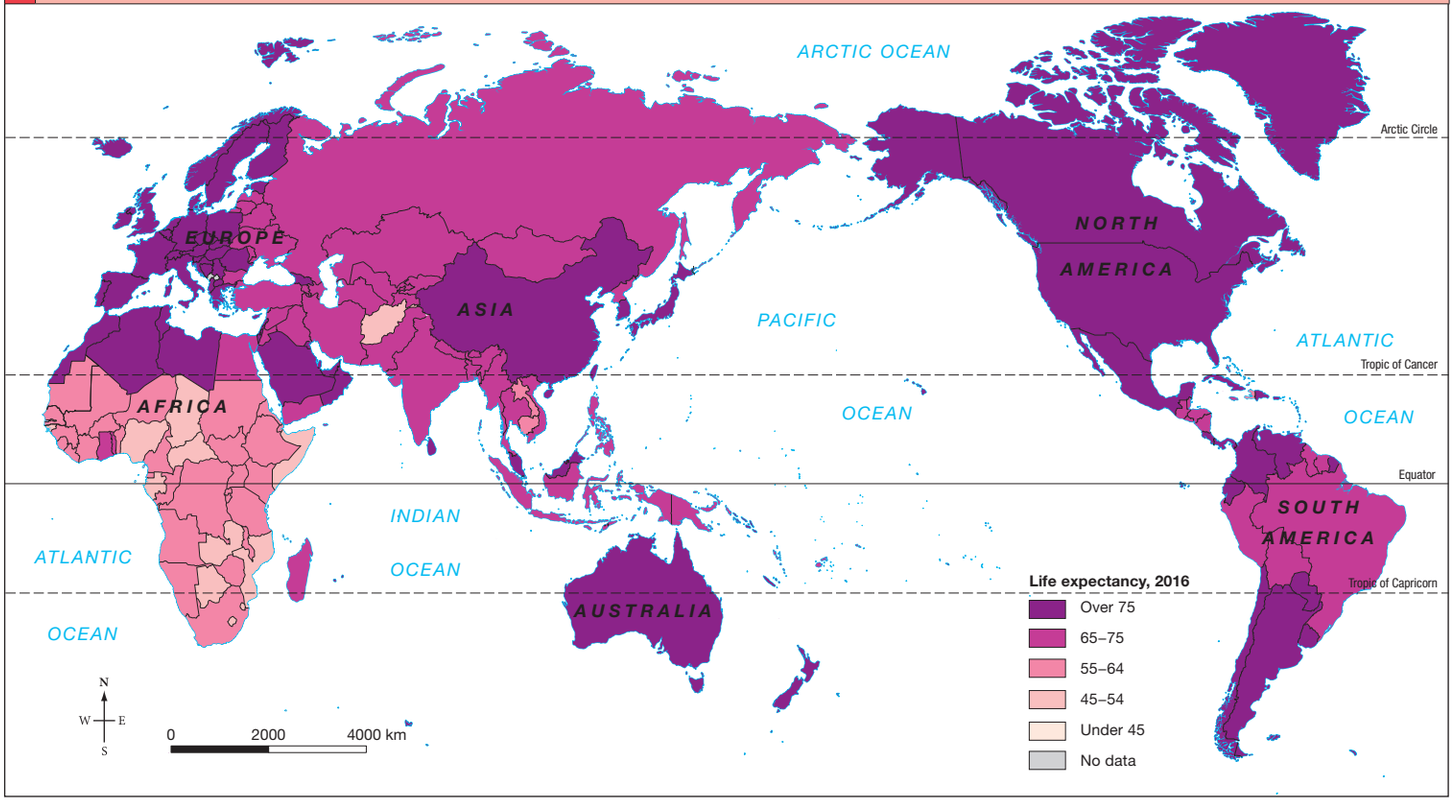
C THE WORLD'S RICH AND POOR COUNTRIES



Source: Redrawn by Spatial Vision based on the information taken from The World Bank and United Nations

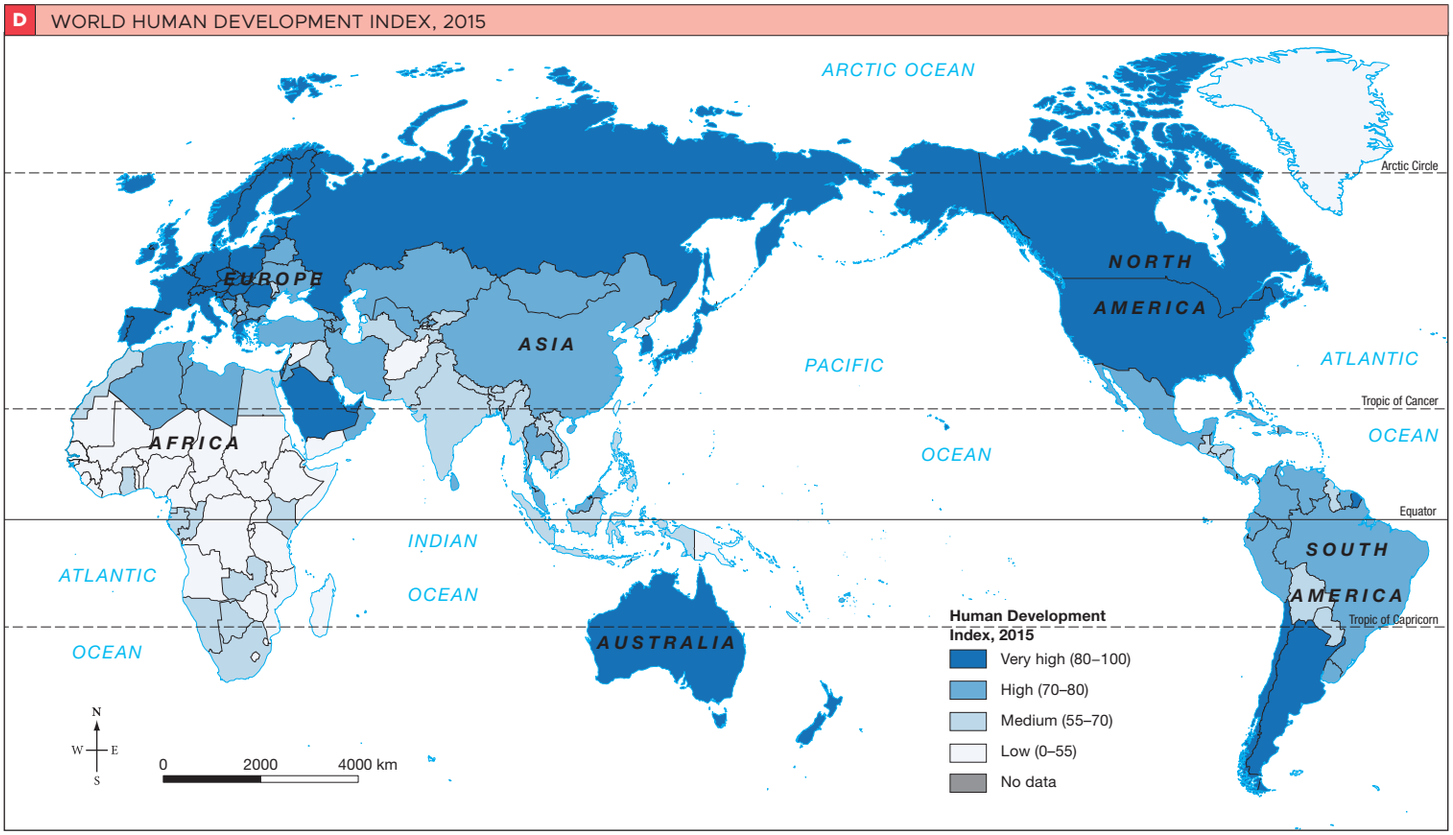
education and health. Countries with a low Human Development Index tend to have a low ranking in each of these categories. It is important, however, to look closer at a country's individual wellbeing data, as variations exist within countries C.

B WORLD LIFE EXPECTANCY, 2016



Source: Central Intelligence Agency

D WORLD HUMAN DEVELOPMENT INDEX, 2015



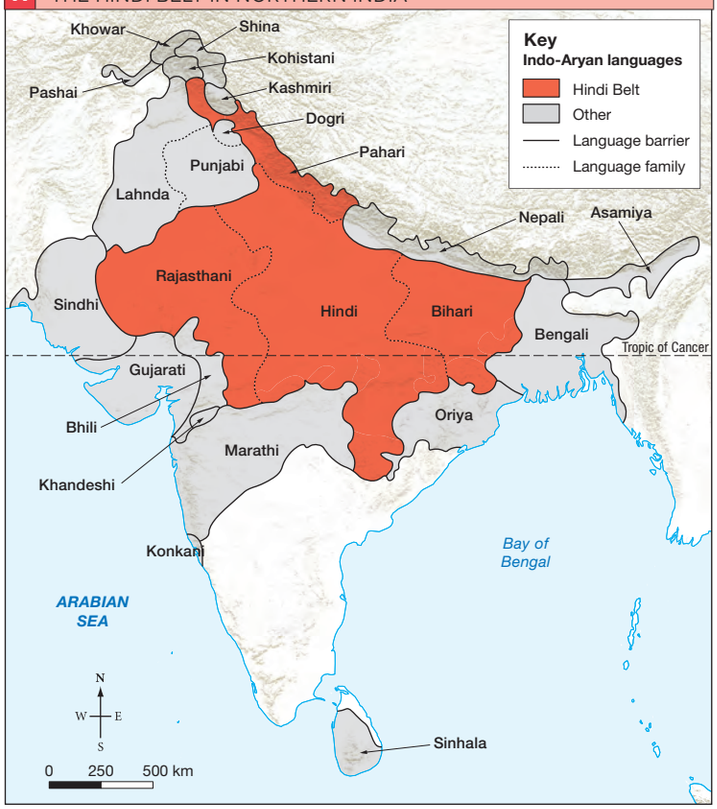
Source: United Nations Development Programme

India

India has experienced rapid growth and improvements in life expectancy, wellbeing and prosperity in recent years; however, this varies widely across the country. The most prominent divide exists between the north and the south. The Hindi Belt, the area stretching across the north of the country where Hindi is predominantly spoken **A**, is a region that experiences significantly lower wellbeing than the more developed south.

The Hindi Belt contains just over 40 per cent of the national population, and just four states within this region (Rajasthan, Madhya Pradesh, Bihar and Uttar Pradesh) experience nearly

A THE HINDI BELT IN NORTHERN INDIA



Source: Language families and branches, languages and dialects in A Historical Atlas of South Asia, 1978

B POPULATION GROWTH RATES OF INDIA, 2015–16



Source: © Office of the Registrar General & Census Commissioner, India

C FEMALE LITERACY RATES, 2011



Source: Data based on Population Reference Bureau

D FERTILITY RATE, 2011–16



Source: Data based on Population Reference Bureau

half of India's population growth B. Over half the women in this region are illiterate C and marry before they turn 18, because the size of their family determines social status. Subsequently, the fertility rates D G in this area are still three to four children per female, whereas in the southern region, some states are below the replacement rate of two children per female.

The two regions will continue to see differences in life expectancy E, poverty F, fertility rates and female literacy rates until women in the north are empowered and have the capacity to effectively contribute to financial conversations and family planning H within the household.

E LIFE EXPECTANCY (MALE AND FEMALE), 2011–16



Source: Data based on Population Reference Bureau

F POVERTY AS A PERCENTAGE OF THE POPULATION, 2011–12



Source: Planning Commission, Government of India

G *Rural family in Uttar Pradesh*

H *Women instructing others in reproductive health* ▼



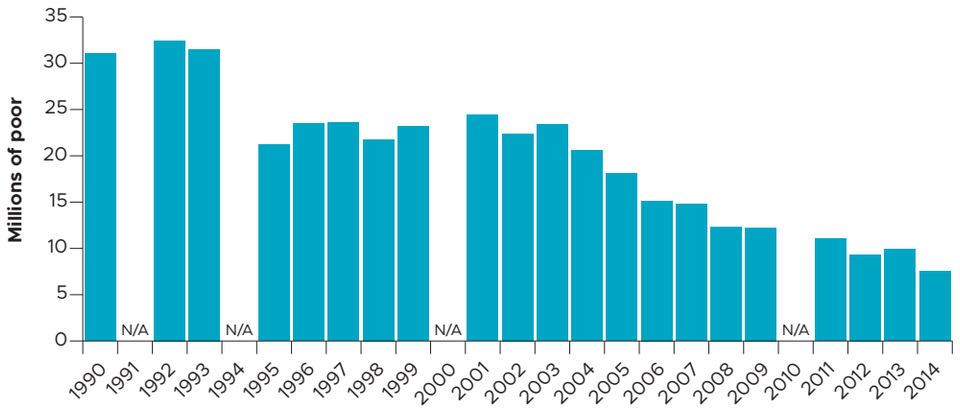
Brazil

Brazil's growing economy has meant a reduction in poverty since the 1990s **A**. The Brazilian Government program Bolsa Família has helped to lift 36 million people out of extreme poverty and improve their wellbeing **D**. This program has now been replaced by the 'Brazil without Poverty' program that will focus on the north-east region of Brazil, which has the highest level of poverty in the country.

Despite a decline in poverty, the gap between rich and poor remains high. The country's richest 1 per cent (about 2 million people) have roughly the same amount of household income (13 per cent) as the poorest 50 per cent (about 80 million people). Such contrasts are evident in Sao Paulo, where rich and poor live side by side **C**. In 2016, nearly 12 million Brazilians lived in poor quality slums or favelas that are concentrated in large cities **B** **F**.

Brazil is home to 21 of the 50 most violent cities in the world. Brazil's homicide rate is 30–35 homicides per 100 000, placing it in the top 20 countries by international homicide rates **E**. High levels of violence continue to be a challenge to improving wellbeing in Brazil.

A *Poverty levels in Brazil, 1990–2014* ▼



B DISTRIBUTION OF FAVELAS IN BRAZIL



Source: Redrawn by Spatial Vision based on information from Brazilian Institute of Geography

C *Sao Paulo, Brazil* ▼



D *Brazil's Bolsa Família Program* ▼

Aims

To reduce poverty

To keep children in school

How

11.2 million poor Brazilian families (more than 44 million people, or a quarter of the Brazilian population) receive financial aid — an average of the equivalent of AU$70 per month.

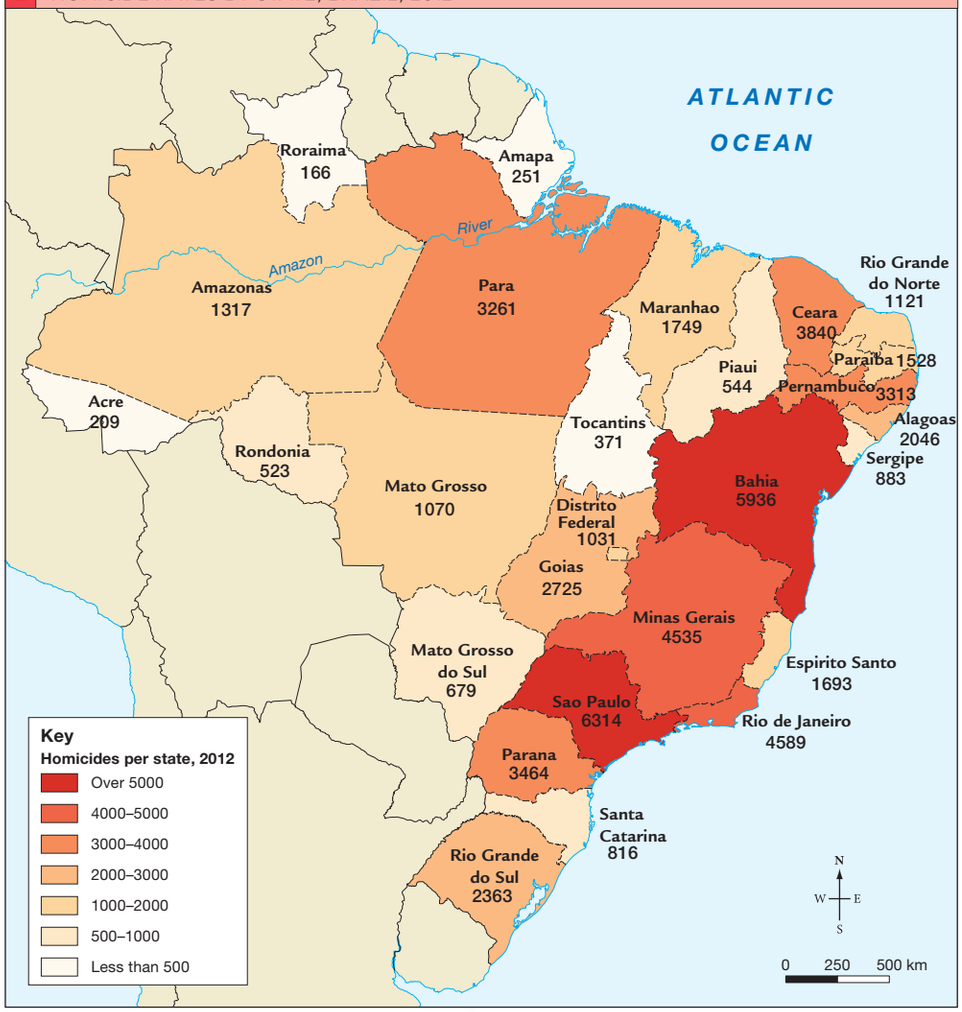
Cost

Equivalent of AU$10 billion — only 0.5 per cent of Brazil's GDP

Impacts

22.7 per cent reduction in poverty	Reduction in child labour	Truancy rate only 7.4 per cent in secondary schools, below the national average	Children in public schools receive one free meal a day

E HOMICIDE RATES BY STATE, BRAZIL, 2012



Source: Mapa da Violência © Julio Jacobo Waiselfisz

F *Favela in Rio de Janeiro, Brazil* ▼

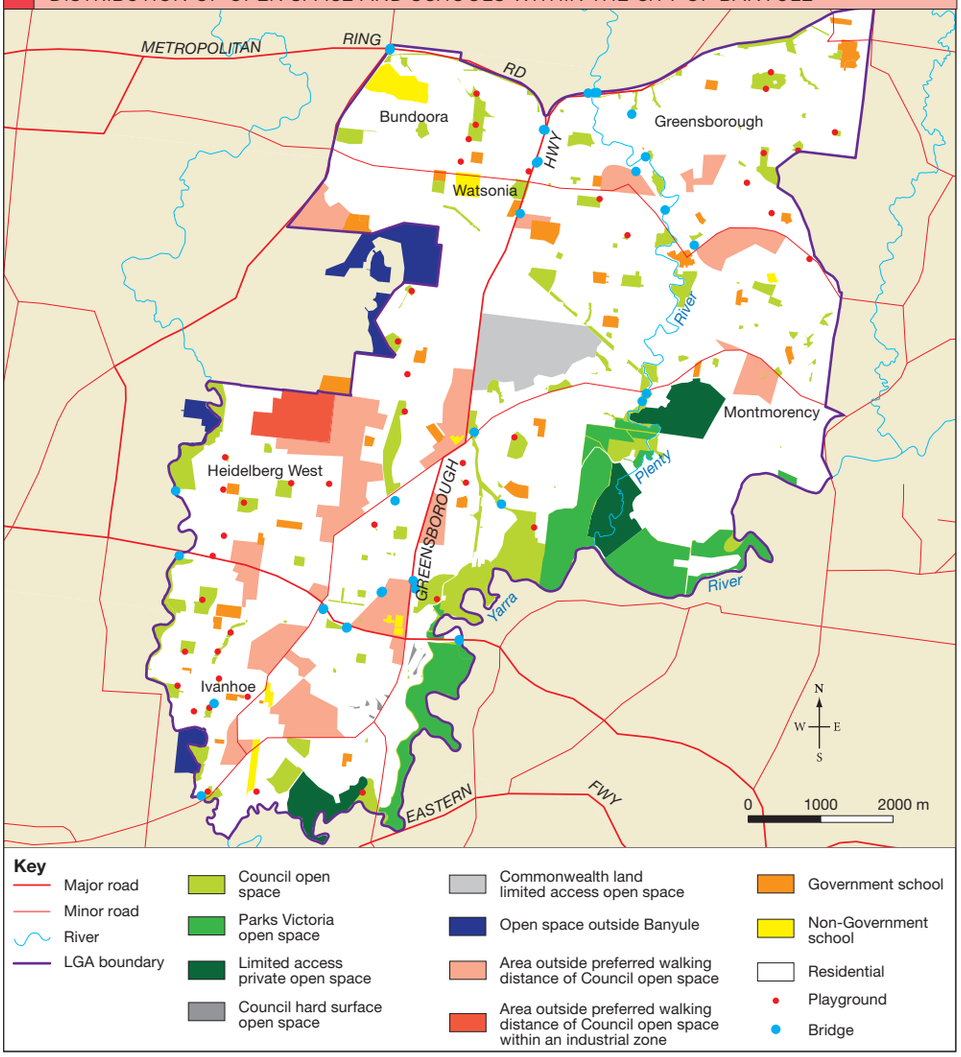


Banyule Council

The City of Banyule is located in Melbourne's north-eastern suburbs, between 7 and 21 kilometres from the Melbourne Central Business District. The Yarra River forms Banyule's southern border, while the west is defined by Darebin Creek. Banyule is an established residential area with significant open spaces and parklands, and a range of educational, health and leisure facilities **A**. There are industrial areas in Heidelberg West, Greensborough/Briar Hill and Bundoora, as well as the Austin and Repatriation Medical Centre and Simpson Army Barracks.

Banyule is a city of contrasts. Overall, it has a good level of wellbeing, with low unemployment, high home ownership, low mortgage stress and better education levels compared to the Melbourne average. However, there are areas of low wellbeing across the municipality, especially in the western area. Households in the west of Banyule have the lowest median household income across the municipality **D** and high levels of social housing — around one in five households (20.9%) **E**.

A DISTRIBUTION OF OPEN SPACE AND SCHOOLS WITHIN THE CITY OF BANYULE

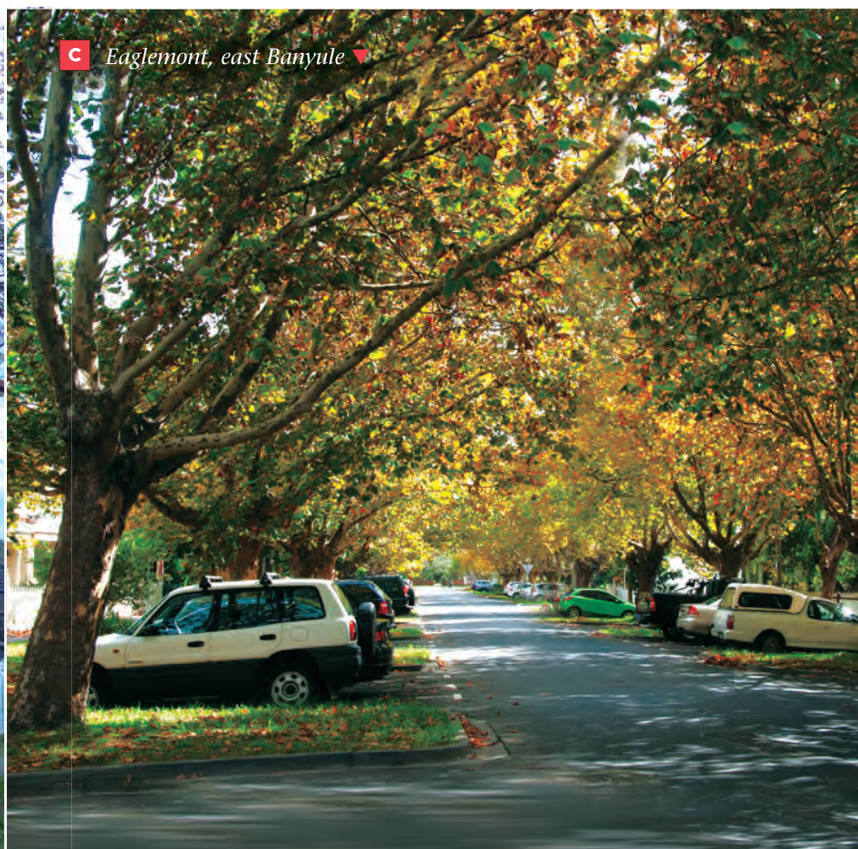


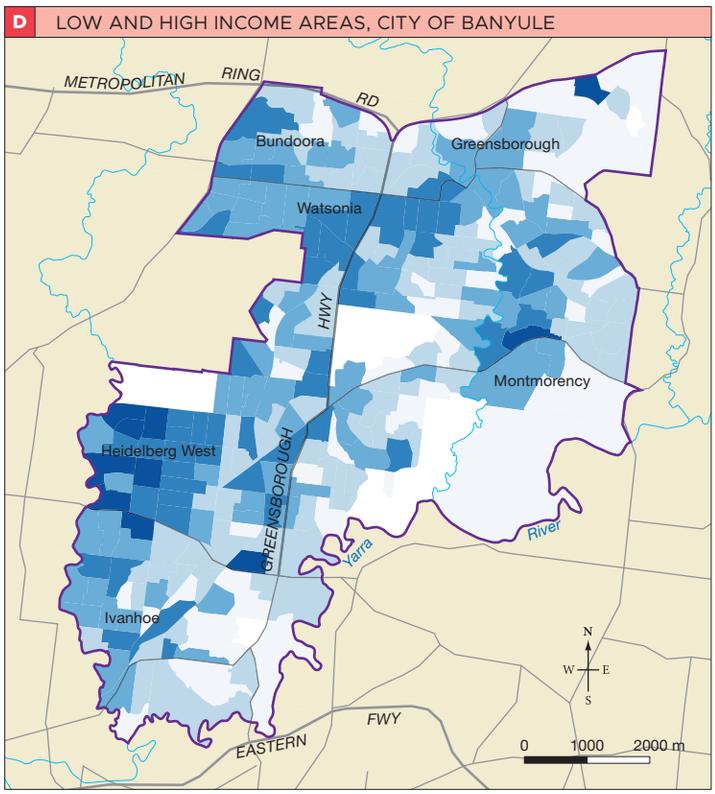
Source: Department of Environment, Land, Water and Planning

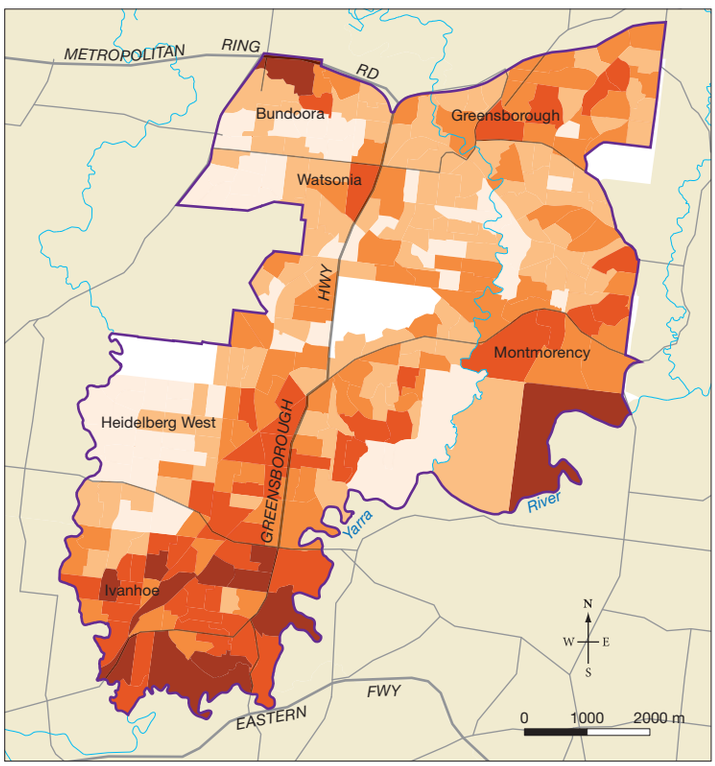
B *Social housing, west Banyule* ▼



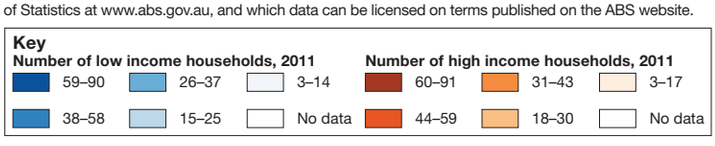
C *Eaglemont, east Banyule* ▼



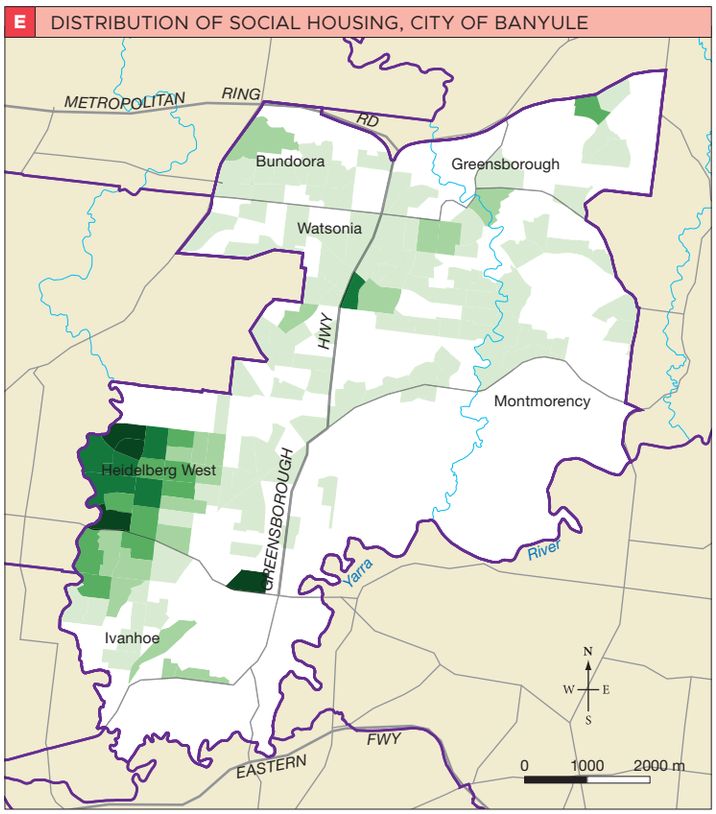




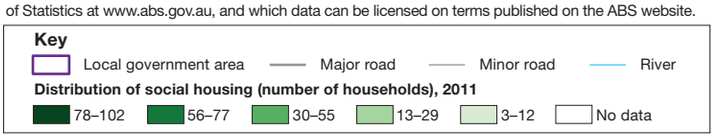
Source: This material was compiled and presented by .id, the population experts. www.id.com.au. This material is a derivative of ABS Data that can be accessed from the website of the Australian Bureau of Statistics at www.abs.gov.au, and which data can be licensed on terms published on the ABS website.

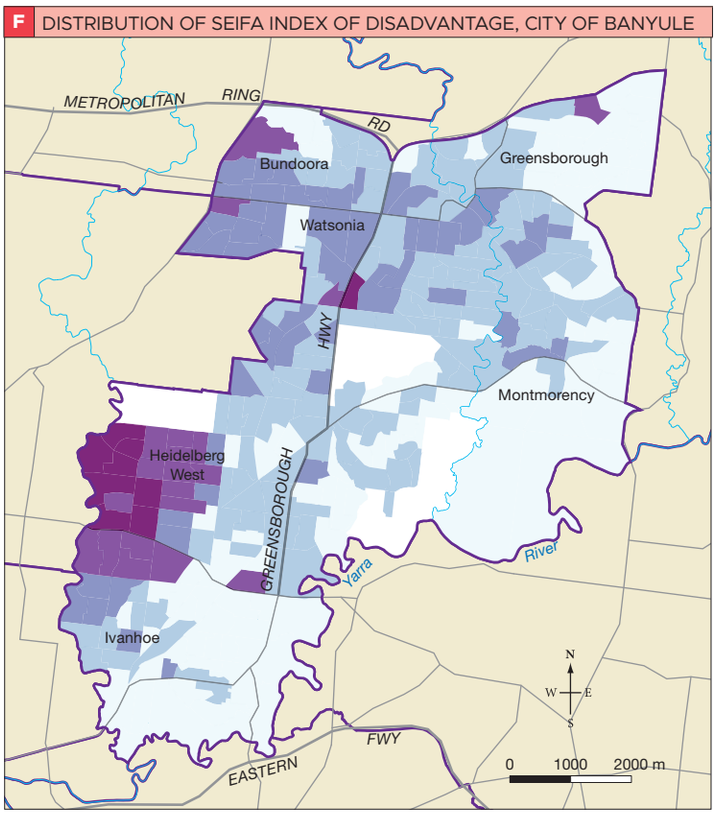


A higher score on the SEIFA Index of Disadvantage indicates a lower level of disadvantage F. Overall, Banyule has a score of 1047, compared to 1020 for the Melbourne average, indicating a good level of wellbeing. However, the west of Banyule has a score of 903, which is below the national average. This area also has the highest proportion of disengaged youth and developmentally vulnerable children across the municipality.

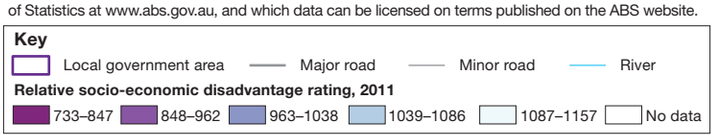


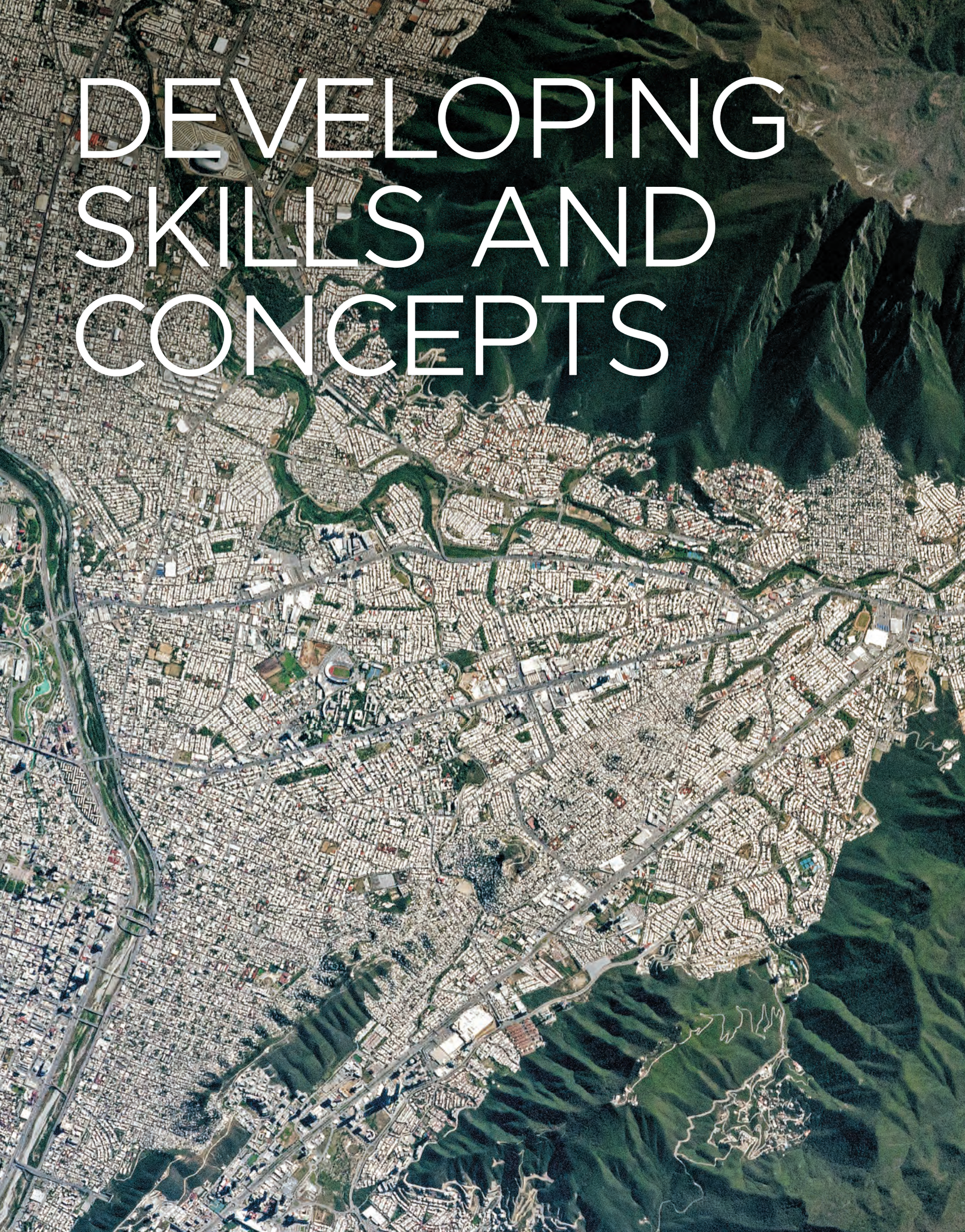
Source: This material was compiled and presented by .id, the population experts. www.id.com.au. This material is a derivative of ABS Data that can be accessed from the website of the Australian Bureau of Statistics at www.abs.gov.au, and which data can be licensed on terms published on the ABS website.





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DEVELOPING SKILLS AND CONCEPTS



25˚40'N, 100˚20'E

MOUNT SILLA (SADDLE MOUNTAIN) AND MONTERREY, MEXICO

Source: NASA / GSFC / METI / ERSDAC / JAROS and U.S. / Japan ASTER Science Team

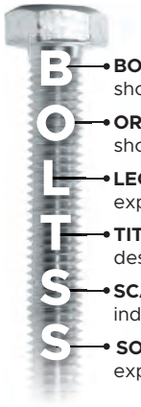
What is a map?

View from above

A map is a visual representation of all or a part of the Earth's surface as seen from above. This is called a plan view or a bird's-eye view C D. Maps show the location and distribution of both natural and human features on the Earth's surface and the relationships between some of these features.

One map cannot usually contain all of a landscape's features. For example, the map of Sandringham G does not show the same information as the aerial photograph C. Maps should include BOLTSS B.

B BOLTSS



- **BORDER** shows the boundaries of the map
- **ORIENTATION** shows direction on the map
- **LEGEND** explains the symbols and colours used
- **TITLE** describes what is on the map
- **SCALE** indicates distances between places on the map
- **SOURCE** explains the source of information for the map

A OBLIQUE AERIAL VIEW OF SANDRINGHAM HARBOUR, PORT PHILLIP, VICTORIA



C BIRD'S EYE OR PLAN VIEW OF SANDRINGHAM HARBOUR, PORT PHILLIP, VICTORIA



Source: Department of Sustainability and Environment, Victoria

Map makers (cartographers) often use vertical aerial photographs as the basis for their maps. These photographs are always taken from directly above the area being mapped and are sometimes referred to as a plan view or a bird's-eye view. ▲

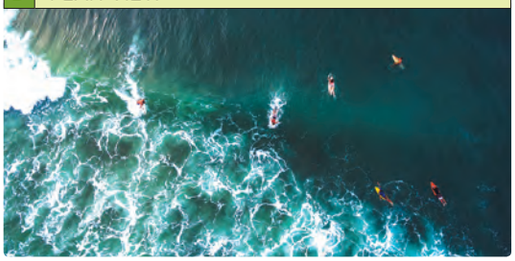
Different views

The surfers in this *plan view* are shown from directly above D. One advantage of a plan view is that the viewer can easily see the location of each surfer in the water and where they are in relation to the other surfers.

Features can also be observed from a low aerial angle, known as an *oblique view* A E. This gives a better idea of the height and shape of objects, but some objects in the background are hidden. Objects in the foreground appear larger than those in the background.

The *ground view* shows how a feature would look if you were standing or paddling near it F. A ground view gives an excellent impression of the height and shape of objects in the foreground, but those in the background are largely obscured and their scale is greatly distorted.

D PLAN VIEW



E OBLIQUE VIEW



F GROUND VIEW



ACTIVITIES

1 What is another term for a bird's-eye view?
2 Identify two similarities and two differences between the aerial photograph C and the map of Sandringham Harbour G.
3 Suggest one piece of information that neither of these images shows.
4 Suggest one occasion when you might find the map G useful and one occasion when you may find the aerial photograph C useful.
5 Examine the three views of the surfers D E F. Suggest an advantage and a disadvantage of each of these views.
6 Draw the following objects from both a plan view and a ground view: a road with a car on it, a house, a forest and a bridge.
7 Use the plan view of the surfers D to draw a map showing their spatial distribution. Include a key to highlight the main features.
8 Study the oblique aerial view of Sandringham Harbour A.
   (a) Identify two ways in which this is different from photograph C.
   (b) Could an accurate map of this area be drawn from this view? Explain your answer.

G SANDRINGHAM HARBOUR, PORT PHILLIP, VICTORIA



Source: Department of Environment, Land, Water and Planning, Victoria

The cartographer (map maker) simplifies the aerial photograph or satellite image to show key features, represented by symbols, points and lines. ▲

Types of maps in this atlas

We often use road maps, school maps, weather maps and maps of shopping centres in our everyday lives. Maps help us to understand the world around us. So, learning how to read and understand maps is an important life skill. We find maps in newspapers, television weather forecasts, car navigation devices and the internet. Maps can range in scale from the floor plan of a house to a globe showing the whole world. Many people use maps in their work. These include people in transport services and defence forces, weather forecasters, geologists, urban planners and travel agents.

Atlases contain many different styles of maps. It is important to be able to read and interpret different maps and to know which map is the most suitable for a particular purpose. Here are examples of some of the types of maps that you will find in this atlas:

A Political maps inform us about the world's countries, their borders and major cities.

B Satellite images show us the Earth's surface taken from a satellite. Even though they are not, strictly speaking, maps, these images do show the distribution of oceans, mountains, lakes, deserts, rivers and other natural features.

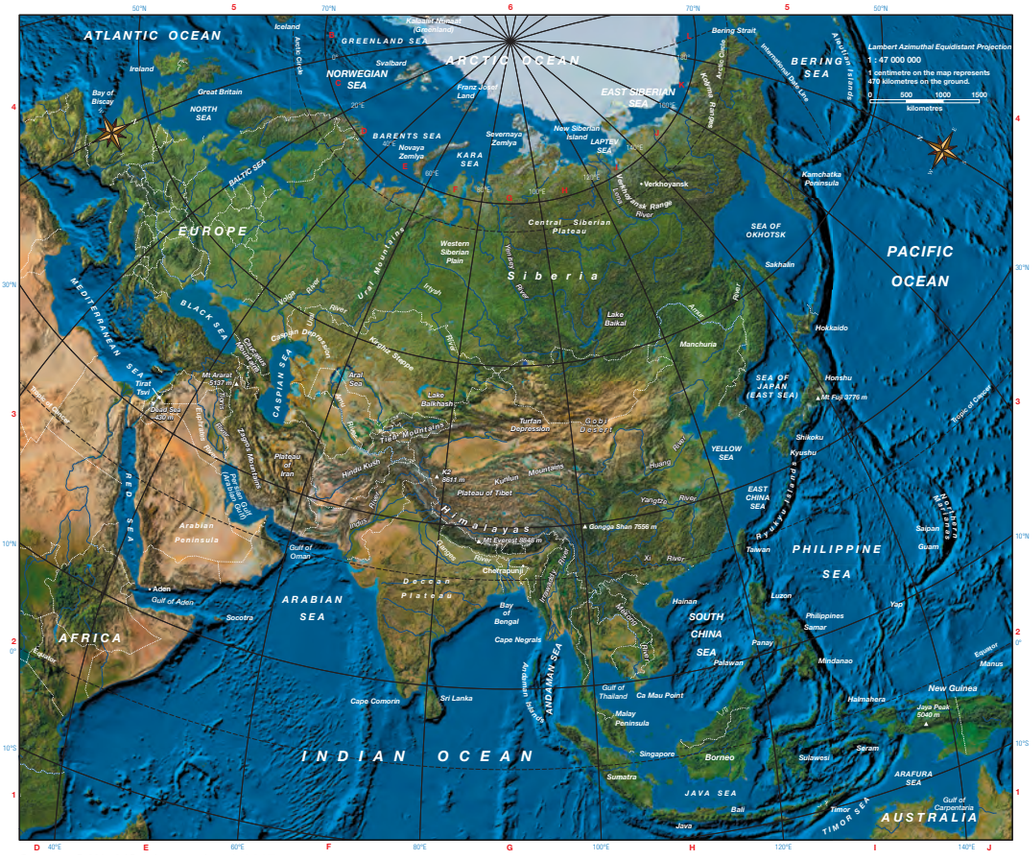
C Thematic maps provide us with information about the distribution of one or more features. Examples include the distribution of languages, wealth and life expectancy.

A POLITICAL MAP



Source: Natural Earth Data, www.naturalearthdata.com

B SATELLITE IMAGE

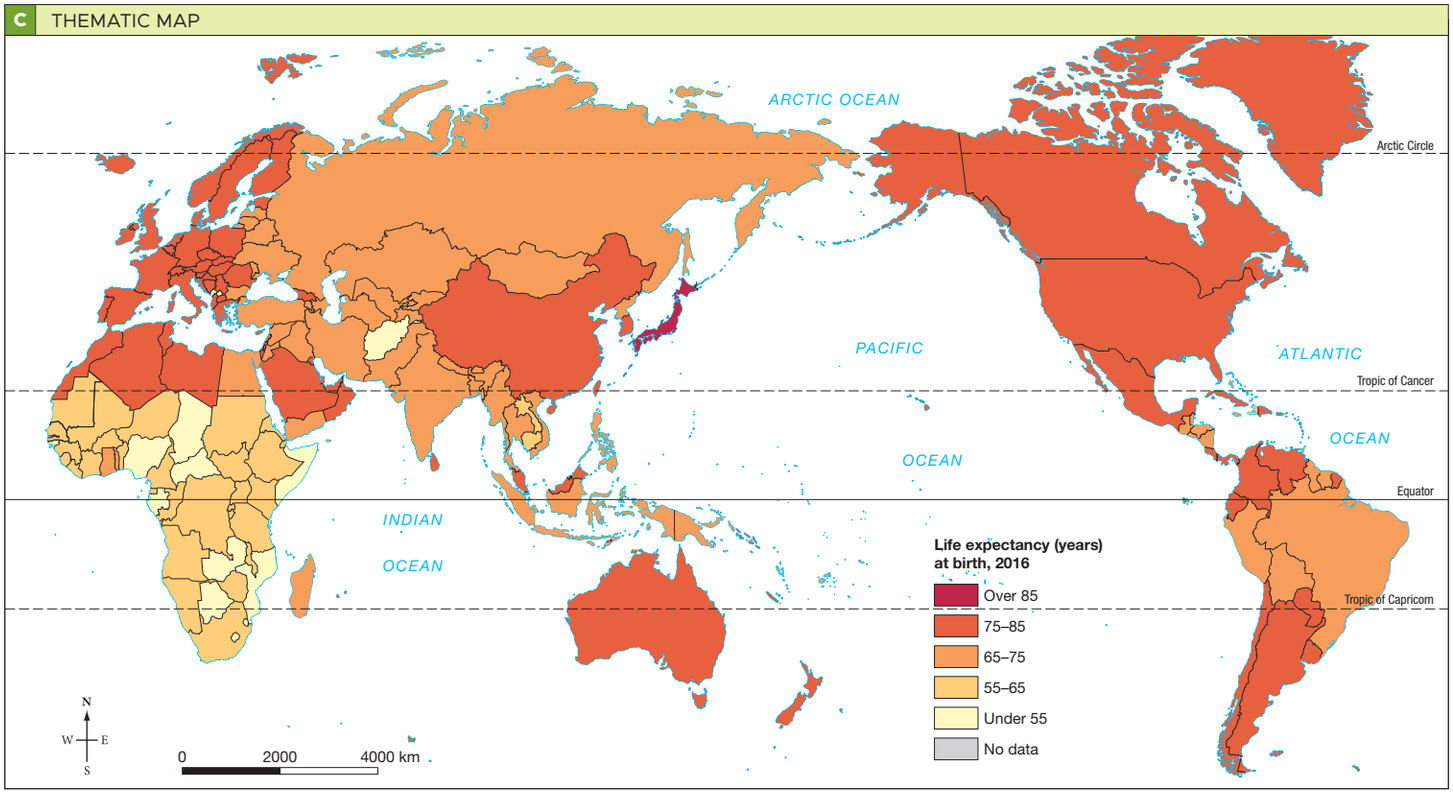


Source: © WorldSat International, 2017

ACTIVITIES

1. Explain why we need various types of maps.
2. List the maps that you have used recently and explain how you used each one.
3. Locate an example of each of the following type of map in the atlas. Supply the page number and the title.
   (a) Topographic map
   (b) A relief map showing a continent or smaller region within a continent
   (c) Climate maps comparing winter and summer rainfall patterns at certain locations
   (d) Political map showing the countries of Asia
   (e) Thematic map showing the distribution of people aged under 15 in a region
   (f) Satellite image of the Murray–Darling Basin
4. Suggest an occasion when people might find each of the maps that you identified in question 3 useful.
5. Identify an occasion when people might find that a satellite image does not meet their needs. Explain your answer.

C THEMATIC MAP



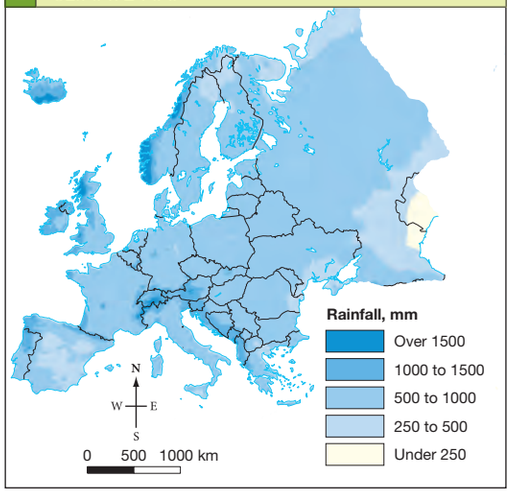
Source: The World Factbook 2013–14. Washington, DC: Central Intelligence Agency, 2013

D RELIEF MAP



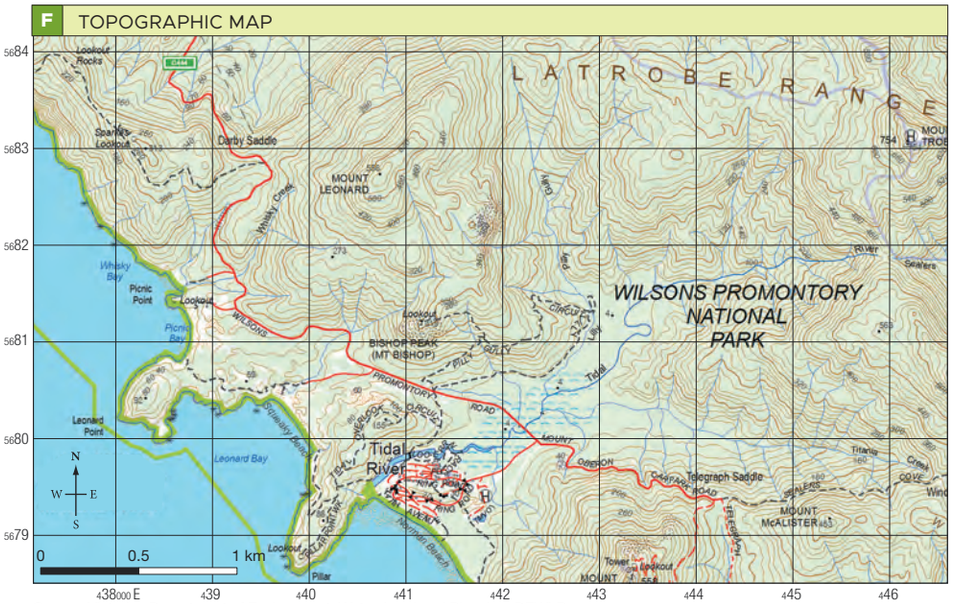
Source: Natural Earth Data, www.naturalearthdata.com

E CLIMATE MAP



Source: WorldClim

F TOPOGRAPHIC MAP



Source: Victorian Department of Environment, Water, Land and Planning, DEWLP

D Relief maps show us human and natural features in a given area. Relief is shown by different colours, which represent different land heights, and by hill shading.

E Climate maps supply information about the temperature or rainfall experienced in a region. Darker colours usually show higher amounts.

F Topographic maps use contour lines or different colours to show the shape and height of land.

Locating places

Location

'Where is it?' is one of the key questions asked by geographers. Every place on Earth has a specific location. This location is usually expressed as an agreed set of coordinates or by its distance from another known location. Grids are used to help locate places on a map. There are two types of grids used in this atlas — an alphanumeric grid and a grid based on latitude and longitude.

Alphanumeric grid

The map of Queensland **C** is divided into a series of small squares. On the top and bottom of the page the squares are labelled with a letter of the alphabet, and on the left-hand side of the page they are labelled with numerals. This is called an alphanumeric grid. The grid is simple to use. If you were looking for the location of Dunk Island, because you were going there for a holiday, you would find it in the grid square C4. By tracing a line with your finger down from the letter C, and then another across the page from the number 4, you should be able to find your holiday destination.

Latitude and longitude

A grid of imaginary lines called latitude and longitude covers the globe, and these lines can be used to accurately locate any place on Earth **B**.

Latitude is always stated before longitude. To give a more accurate location, each degree (°) is divided into 60 minutes (′). Using this system, Dunk Island is located at 17°56′ South, 146°9′ East.

The gazetteer index on pages 214–265 lists the latitude and longitude of each place named in the atlas. It also gives the page number and an alphanumeric grid reference.

ACTIVITIES

1 Study the map of Queensland on page 193 **C**.
   (a) Provide alphanumeric grid references for Shoalwater Bay, Duyfken Point, Swain Reefs and Staaten River National Park.
   (b) Name the sea located at A5.
2 Look at the Asia–Pacific map on this page **A**.
   (a) Give an alphanumeric grid reference for Thailand.
   (b) Identify the capital city located at 25˚5'N 121˚32'E.
   (c) Find Honiara, the capital of the Solomon Islands. Describe its location in three different ways.
3 Find the locations of Sydney and Perth by using the index in this atlas. Which of these two cities is further north?
4 Use the map of Africa on pages 94–5 to complete the following table, which describes the location of selected capital cities.

Capital city	Alphanumeric grid reference	Latitude and longitude
Nairobi		1°17′S 36°50′E
Nouakchott	B6	
		22°34′S 17°06′E
	H5	

A MELBOURNE'S LOCATION IN THE ASIA–PACIFIC REGION

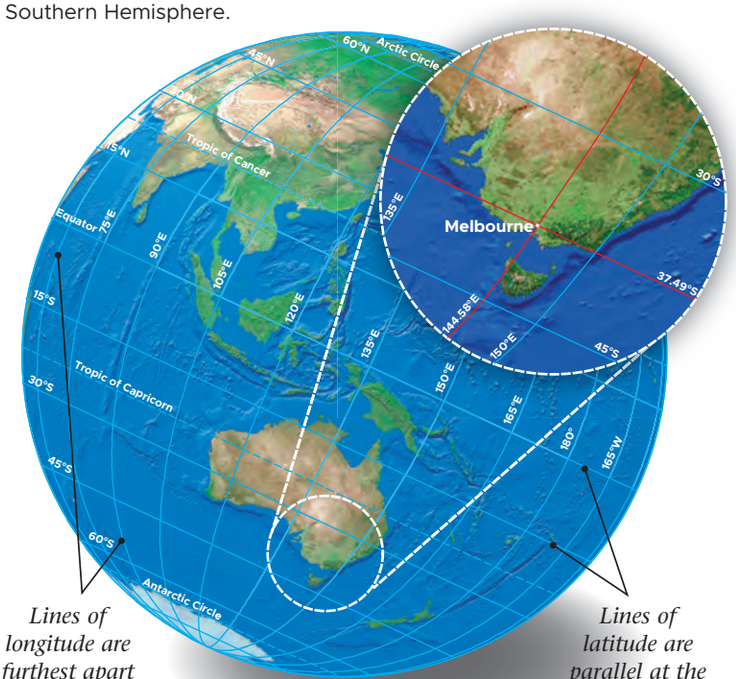


Source: Natural Earth Data, www.naturalearthdata.com

B LATITUDE AND LONGITUDE

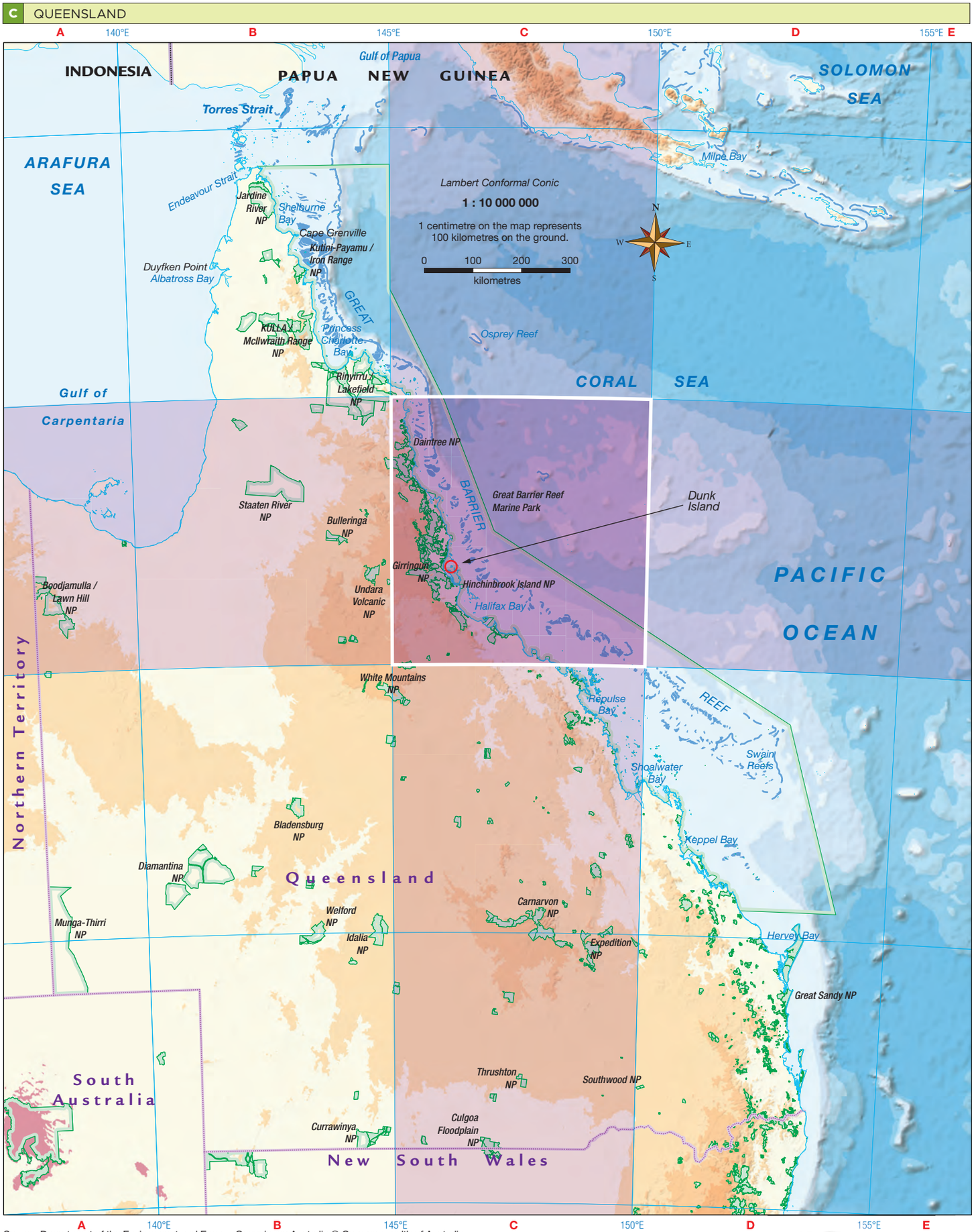
Lines or parallels of latitude run around the Earth. They have a value between 0˚ and 90˚ and indicate how far north or south of the Equator (0˚ latitude) a place is located. The North Pole's location is at latitude 90˚N and the South Pole's location is at 90˚S. All places north of the Equator are in the Northern Hemisphere and those to the south are in the Southern Hemisphere.

Lines of longitude run from the North and South Poles. These lines are called meridians. Meridians have a value between 0˚ and 180˚ and indicate how far east or west a place is located from the Prime Meridian (0˚ longitude), which passes through the Greenwich Observatory in London. The 180˚ meridian is called the International Date Line.



Lines of longitude are furthest apart at the Equator and meet at the poles.

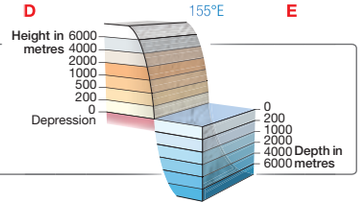
Lines of latitude are parallel at the Equator and an equal distance apart.



Source: Department of the Environment and Energy, Geoscience Australia © Commonwealth of Australia

Key

- Reef
- National park
- INDONESIA — Country name
- Country border
- Queensland — State/territory name
- State/territory border



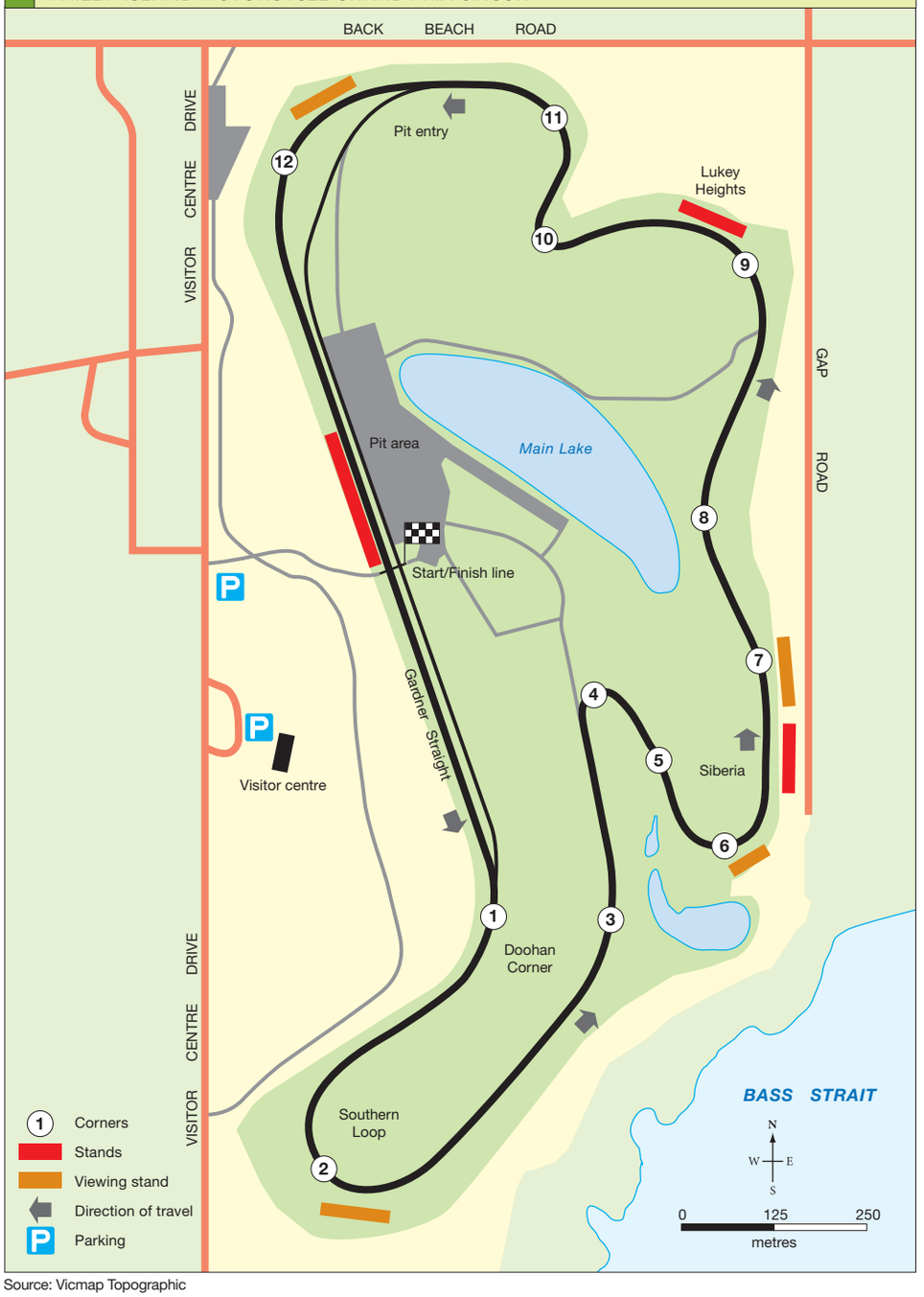
Understanding direction

Direction on maps

In conversation, we often express direction in terms of left and right, and up and down. However, this is imprecise, especially for people like pilots, weather forecasters and bushwalkers. Direction shows us the relationship between the location of places on the Earth's surface, and it is more accurately expressed using the points of a compass. The cardinal points on a compass are north, south, east and west. To provide more accuracy, these can be further divided into intermediate points: north-east, north-west, south-east and south-west **B**. Using these compass points is more accurate, because no matter which way you are facing, the compass direction always remains the same.

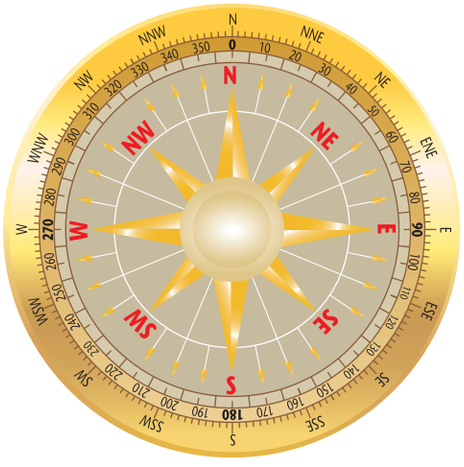
It is important to check where north is on a map. For greater accuracy, a bearing (angle) is given in degrees (°) and minutes (′) measured clockwise from the north. These are shown on the compass **B**. Sixty minutes equals one degree and there are 360° on a compass. Flying from Sydney to Bangkok, a pilot would follow a bearing of 310° **D** **E**.

A PHILLIP ISLAND MOTORCYCLE GRAND PRIX CIRCUIT

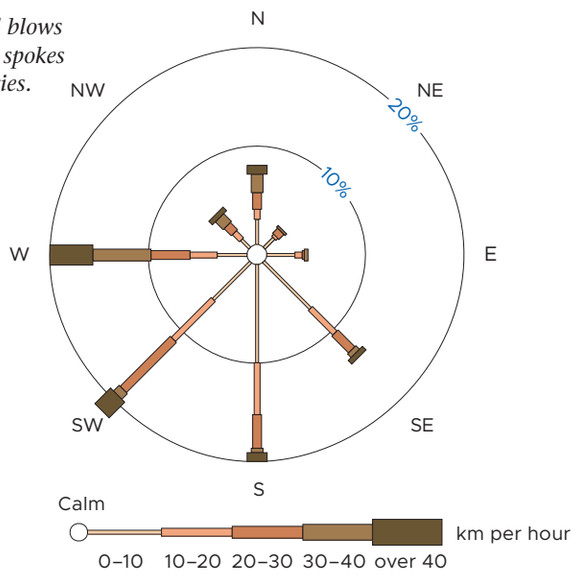


Source: Vicmap Topographic

B A 16-POINT COMPASS



C *Spokes show the direction the wind blows from. Thickness and colours of the spokes represent wind speeds and frequencies. Large circles show frequency of wind from each direction.* ▶



Wind and sun direction

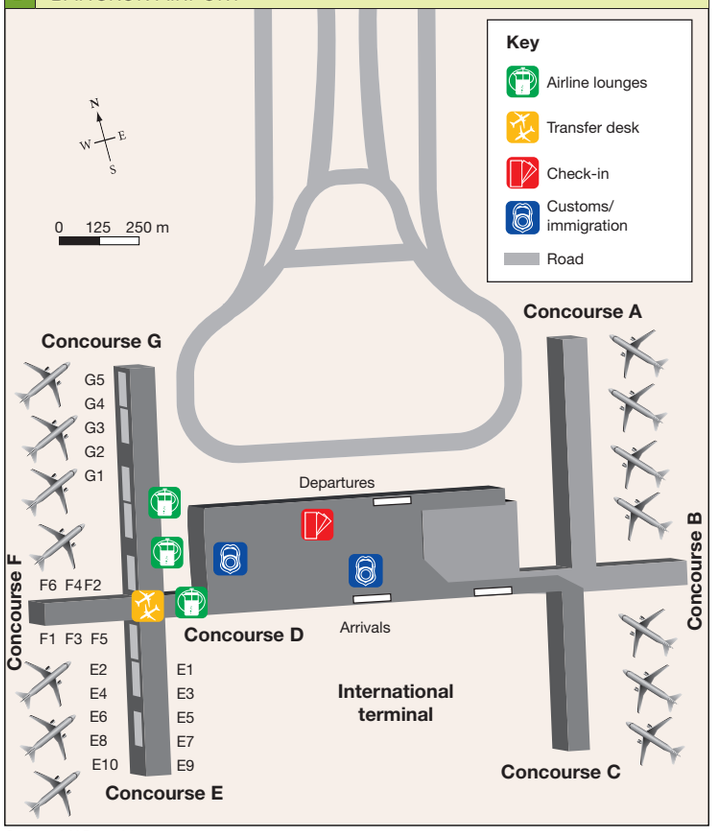
A good understanding of wind direction and the direction of the sun can be important for the organisers, participants and spectators of some sporting events. The Phillip Island Circuit **A** is located on Phillip Island, south-east of Melbourne, and is home to the Australian Motorcycle Grand Prix. The prevailing or common winds in this region come, for most of the year, from a westerly and south-westerly direction **C**.

Winds are named for the direction from which they blow, so a northerly wind blows from the north towards the south and a westerly wind blows from the west towards the east. Remember also that the sun rises in the east and sets in the west.

Bangkok Airport

Bangkok is a major travel hub for the Asian and Pacific region. Its central location enables frequent connections to most major cities.

D BANGKOK AIRPORT



Source: MAPgraphics

ACTIVITIES

1. How many degrees is west on a compass?
2. Explain why the following people would need to have a good understanding of direction: weather forecasters, pilots and volunteer firefighters.
3. Most cricket pitches in Australia run in a north–south direction rather than east–west. Can you suggest why this might be the case?
4. Examine the map of the Phillip Island Circuit **A** and the wind rose **C** and answer the following questions.
   (a) In which direction would the riders be travelling at corners 8 and 9, and between corners 11 and 12?
   (b) In which direction would they be travelling as they approach the Finish line?
   (c) From which direction do the strongest winds blow on Phillip Island?
   (d) What are the fastest wind speeds experienced on Phillip Island?
   (e) How might the wind direction and speed affect the riders?
   (f) If you were standing on the viewing mound at corner 7, in which direction would you be looking? Why might you need a peaked cap late in the afternoon?
5. Examine map **D**. In which general direction would you be travelling if going from Concourse F to Concourse B?
6. Examine the map of regional air routes from Bangkok **E**.
   (a) Estimate the compass direction and bearing of a plane that is flying from Bangkok to Sydney.
   (b) If the plane then flies from Sydney to Suva, Fiji, give the new compass direction and bearing.
7. Give an example of a destination that a plane leaving Bangkok might arrive at if it travelled at a bearing of:
   (a) 180°
   (b) 90°
   (c) 240°
   (d) 340°.

E REGIONAL AIR ROUTES FROM BANGKOK, THAILAND



Source: OCHA / Natural Earth Data www.naturalearthdata.com / Openflights

Understanding scale

A *Eartha, in Maine, USA, is the world's largest scale model of Earth.* ▼



Using scale

If a map is to be useful, it must be small enough for a person to handle easily. Imagine if the maps in this atlas or the globe shown in **A** were the same size as the areas they represented. They would be impractical to produce and to use. A mapped area, therefore, has to be reduced, or drawn to scale. The scale on a map indicates the extent to which a map has been reduced **B**. It also indicates how to convert the distance between two places on the map into the actual distance between the same two places on the Earth's surface.

This scale needs to be consistent across the whole map. For example, if two cities 20 kilometres apart on the Earth's surface are shown two centimetres apart on a map, then other locations that are 20 kilometres apart on the Earth's surface should also be two centimetres apart on the map.

Expression of scale

In this atlas you will find map scales expressed in three ways **B**.

1. A ratio or representative fraction (RF) is shown as, for example, 1 : 16 000 000 or 1/16 000 000. In this example, one centimetre on the map represents 16 000 000 centimetres (or 160 kilometres) on the Earth's surface.
2. A scale statement is given as, for example, 'One centimetre represents 160 kilometres.'
3. A scale bar (or line scale) is a numbered line showing how many metres or kilometres are represented by a given distance on the map.

B *The three different ways of expressing scale in this atlas* ▼

Scale 1 : 16 000 000

1 centimetre on the map represents 160 kilometres on the ground.

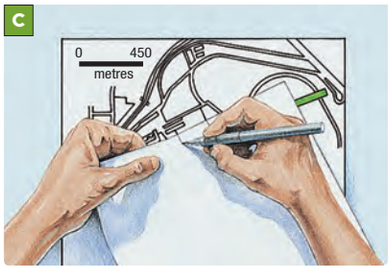
0 160 320 480 km

How to measure distances on a map

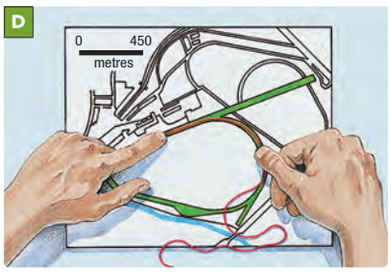
Straight lines: Place the edge of a piece of paper along the distance to be measured. Mark the starting and finishing points on the paper. Hold your piece of paper against the scale bar to work out the actual distance between the points **C**.

Curved features: If you need to measure a curved feature, like a road or a river, use a piece of string to follow the curves. Mark the starting and finishing points on the string. Hold this against the line scale to calculate the actual distance between the points **D**.

C



D



Small-scale and large-scale maps

Maps can be divided into two categories: *large-scale* and *small-scale*. *Large-scale* maps show a small part of the Earth's surface but with a lot of detail. A street directory map and a map of your school grounds are examples of *large-scale* maps **E**. They are called *large-scale* because their representative fraction (for example, 1 : 25 000) is larger than those of *small-scale* maps, which might have a representative fraction of 1 : 500 000. Similarly, $\frac{1}{2}$ an orange is larger than $\frac{1}{8}$ of an orange.

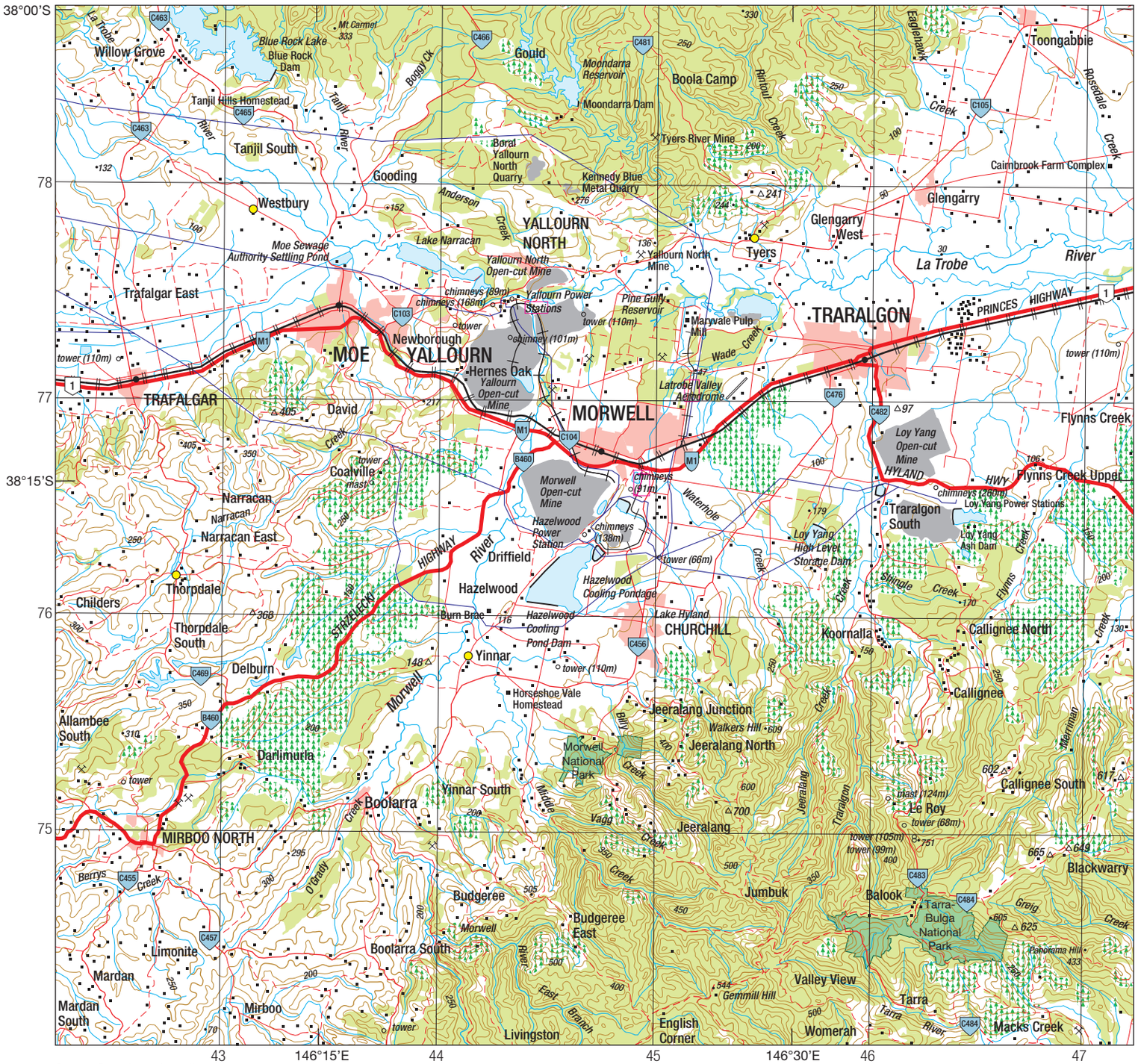
Small-scale maps represent much larger areas of the Earth's surface, but they lack detail. Political maps and a map of the world are examples of *small-scale* maps.

Remember: the larger the number in the fraction, the smaller the scale; and the smaller the number, the larger the scale.

ACTIVITIES

1 What does the scale on a map tell us?
2 (a) What is a large-scale map? Locate an example in this atlas, and state its title and page number.
(b) What is a small-scale map? Locate an example in this atlas, and state its title and page number.
3 Name an occasion when you might use:
(a) a large-scale map
(b) a small-scale map.
4 Examine the topographic map extract of the Latrobe Valley **E**. Use the scale to help you answer the following (**AR** and **GR** are explained on pages 204–5):
(a) What is the scale of this map?
(b) Explain in your own words what this means.
(c) What distance would 6 centimetres on this map represent on the Earth's surface?
(d) What distance would 1.2 centimetres on this map represent on the Earth's surface?
(e) What is the widest extent of the Morwell open-cut mine (AR4476) from east to west?
(f) What is the longest extent of the Morwell open-cut mine (AR4476) from north to south?
(g) If you were to travel by train from Moe station (GR435774) to Morwell station (GR44768), how far would you have travelled?
(h) If you were to continue your journey to Traralgon station (GR459772), how much further would you have travelled?

E TOPOGRAPHIC MAP EXTRACT OF THE LATROBE VALLEY



Source: Geoscience Australia

SCALE 1 : 250 000

kilometres 0 5 10 15 20 25 30 35 40 kilometres

N W E S

sealed / unsealed	
Principal road; Built-up area; Locality	Building/s; Homestead
Secondary road	Open-cut mine; Mine
Minor road	Contour with value (interval 50 metres)
Route marker: national, state	Horizontal control point; Spot height (metres)
Airport	Forest, wood or scrubland; Pine plantation
Multiple track railway; Station or siding	Watercourse (presence of water not implied)
Single track railway	Perennial lake; Dam; Non-perennial lake
Powerline (110 kV and over)	National park

Interpreting aerial photographs and satellite images

The world's first aerial photograph was taken by a French artist from a balloon in 1858. Aerial photographs are taken from any high vantage point and there are two main types: vertical and oblique. Vertical aerial photographs are taken with a camera that is pointing straight down towards the ground **A**. Oblique aerial photographs are taken with a camera that is directed at an angle other than vertical to the ground **B**. Satellite images, as their name suggests, are taken from satellites that orbit the Earth at much higher altitudes **C**. These images cover larger areas of the Earth's surface than is possible from aerial photographs.

Aerial photographs

Aerial photographs help us to understand the Earth's surface better. They provide information about the natural and human features of a landscape, the ways in which land is being used, and the changes that are occurring. Some of these changes may not be visible at ground level.

In a vertical aerial photograph **A** the scale remains constant, and direction and distances are easier to calculate. Tall objects like buildings, trees and hills do not conceal other objects as much as they do on oblique photographs.

An oblique aerial photograph **B** covers a larger ground area than a vertical photograph taken from the same altitude. Low oblique photographs are taken with the camera at about 30° from the vertical. This is like viewing the scene from a high building, and the view is easier to interpret than a vertical photograph. A scale cannot be applied to the entire photograph, and distance cannot be measured accurately.

High oblique photographs are taken with the camera angled at about 60° from the vertical. Such photographs cover a larger area, and they resemble the view a helicopter pilot has when approaching a landing site.

Satellite images

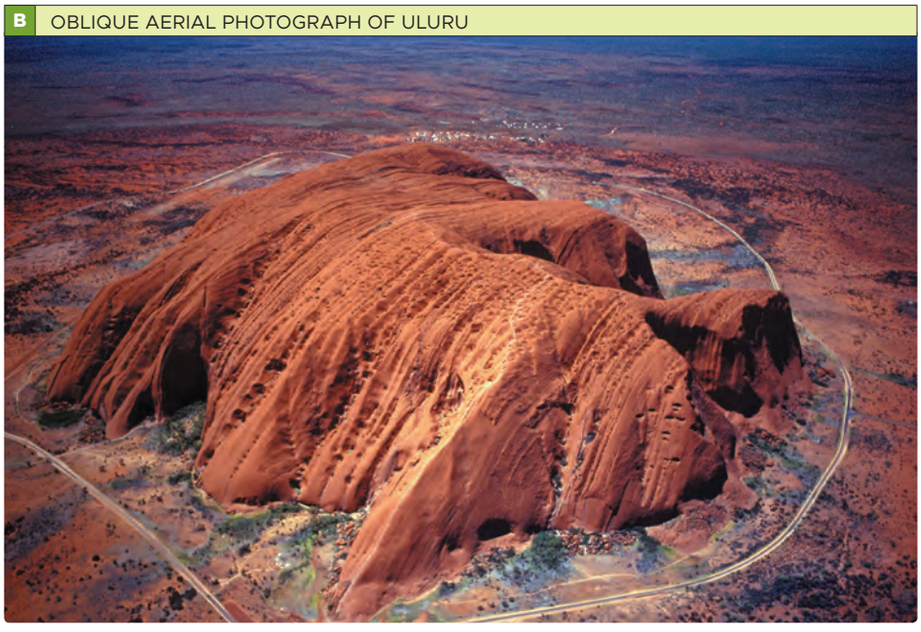
Generally, satellites orbit the Earth every 100 minutes at an altitude of 700 kilometres. They provide a complete coverage of the whole globe once every 16 days **C**.

Satellites can digitally record the variations in the light reflected from the Earth's surface — a process known as remote sensing. This data is sent to stations on the ground, where computers enhance the images.

A VERTICAL AERIAL PHOTOGRAPH OF ULURU



B OBLIQUE AERIAL PHOTOGRAPH OF ULURU



C *Satellite images help geographers observe a much larger area of the Earth's surface than aerial photographs taken from an aircraft.*



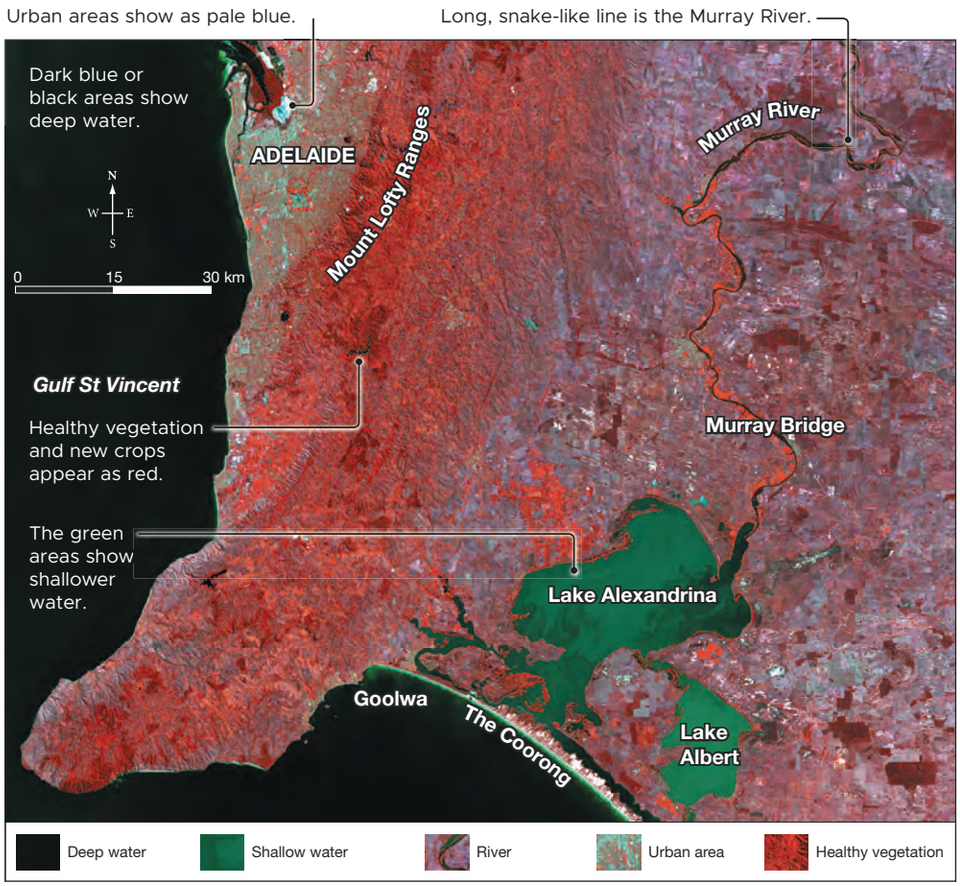
Different features can be highlighted in the satellite images by selecting just some of the bands of light reflected from Earth. These bands of light can be assigned false colours to highlight spatial patterns more clearly. The false-colour satellite image of Adelaide D indicates how this is done.

These images enable geographers to predict weather patterns and to study the growth of cities, changes in vegetation cover and agricultural production, and the impact of natural events E F.

Satellite images appear throughout this atlas. The key accompanying the image help you to interpret the colours.

On 12 June 2009, Sarychev Peak, on the island of Ostrov Matua in Russia's Kuril Islands, erupted spectacularly and changed the island significantly. The false-colour images show the island two years before the eruption on 26 May 2007 E and shortly after the eruption on 30 June 2009 F. Vegetation (red) at the north-western end of the island has been covered by volcanic debris. Ice (white) has melted and the island's north-western coastline has expanded.

D FALSE-COLOUR SATELLITE IMAGE OF ADELAIDE AND SURROUNDING REGION



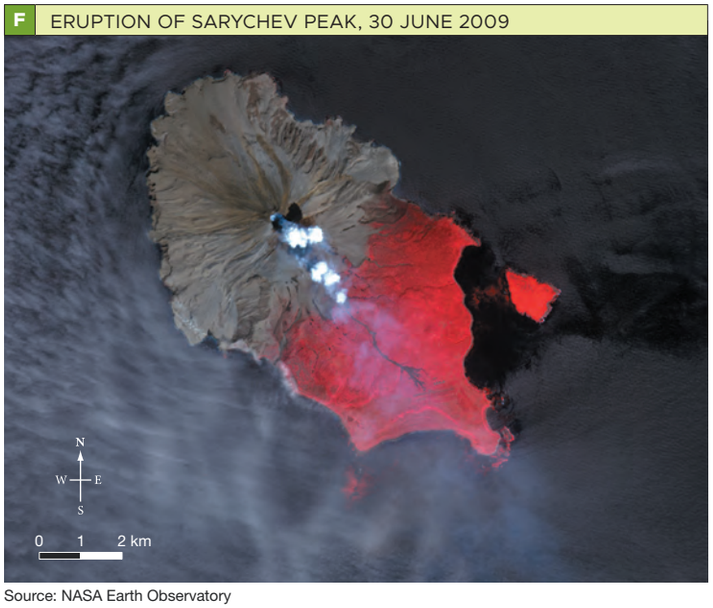
Source: Data available from the U.S. Geological Survey

E SARYCHEV PEAK BEFORE ERUPTION, 26 MAY 2007



Source: NASA Earth Observatory

F ERUPTION OF SARYCHEV PEAK, 30 JUNE 2009



Source: NASA Earth Observatory

ACTIVITIES

1 Examine the vertical aerial photograph A and the oblique aerial photograph B of Uluru. Describe the similarities and differences in the images. Suggest how geographers may find both of these images useful.
2 Why are false colours used on satellite images?
3 Why is the data collected by satellites called remote sensing?
4 What are the advantages and disadvantages of collecting data remotely?
5 When would a satellite image like that of the Adelaide region be more useful than a map of the same area?
6 Examine satellite images E and F.
(a) Identify two changes that have taken place on this island between 2007 and 2009.
(b) Suggest reasons to explain the difference in snow cover between the two images.
7 Refer to the series of maps A on page 80 showing the changes that have occurred to the Aral Sea over time.
(a) Describe the changes that occurred between 1960 and 2015.
(b) When were the changes most rapid?
(c) Use the scale to estimate the area of the lake in 1960 compared to the area in 2015.

Interpreting height on maps

The oblique aerial photograph of Mount St Helens erupting in 1980 gives the viewer a good idea of the shape and height of the land **A**. How do cartographers represent landforms, such as Mount St Helens, on flat sheets of paper? In this atlas, cartographers have used physical maps with symbols and colours to show the height of the land and the depth of the sea **B**.

A *Mount St Helens, Washington, USA* ▼



ACTIVITIES

1. List two ways in which cartographers show the height of land in the map of north-western United States **B**.
2. Examine the digital terrain model of Mount St Helens **C** on this page and the contour map **D**.
   (a) Which side of the volcano is the steepest? (Use compass directions.)
   (b) What do contour lines close together indicate?
   (c) Make a sketch of the contour pattern for the section of the volcano that collapsed after the eruption.
3. Follow the instructions at the top of page 201 and draw your own cross-section of Mount St Helens from points C to D.
4. Look at the cross-section of Antarctica on page 57.
   (a) What is the highest point of the ice sheet?
   (b) What is noticeable about the height of most of the bedrock of Antarctica? Suggest why this might be the case.
5. Examine the cross-section of the Kokoda Trail on page 63.
   (a) What is the approximate height of Mount Bellamy?
   (b) What is the approximate height of Imita Ridge?
   (c) Do you think that you would be able to see Mount Bellamy if you were standing at the top of Imita Ridge? Explain.
   (d) How would the first section of a trek, from Owens Corner to Mount Bellamy, differ from the final section, from Mount Bellamy to the end of the trail?

Contour maps

Contour lines are lines on a map that join places of equal height above sea level. When the lines are close together, the slope is steep, and when they are wide apart the slope is gentle. The difference in height between one contour line and the next is always the same on the map. This is called the vertical or contour interval. Spot heights are also given on maps to show the height of particular locations. The contour map of Mount St Helens shows the relief features of the volcano in great detail **D**.

To help show the shape of the land more clearly, a cross-section can be drawn. This shows the shape of a feature from the side, as if it had been sliced with a knife. The cross-section **E** shows the profile of Mount St Helens along the line A–B (in **D**), both before and after the volcanic eruption in 1980.

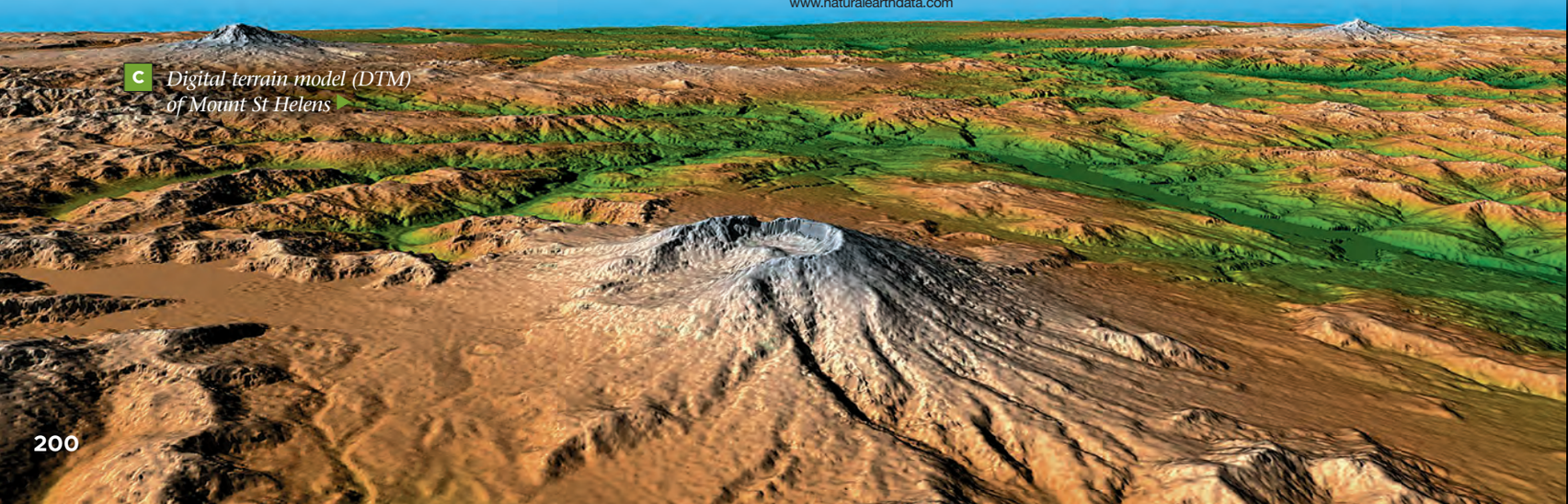
New methods of showing height include digital terrain models (DTMs). Image **C** is a DTM of Mount St Helens after the eruption. It was created using digital elevation data gathered from the Space Shuttle *Endeavour*. A satellite image of the volcano was then superimposed over the model to make it appear more realistic.

B NORTH-WESTERN USA, SHOWING MOUNT ST HELENS



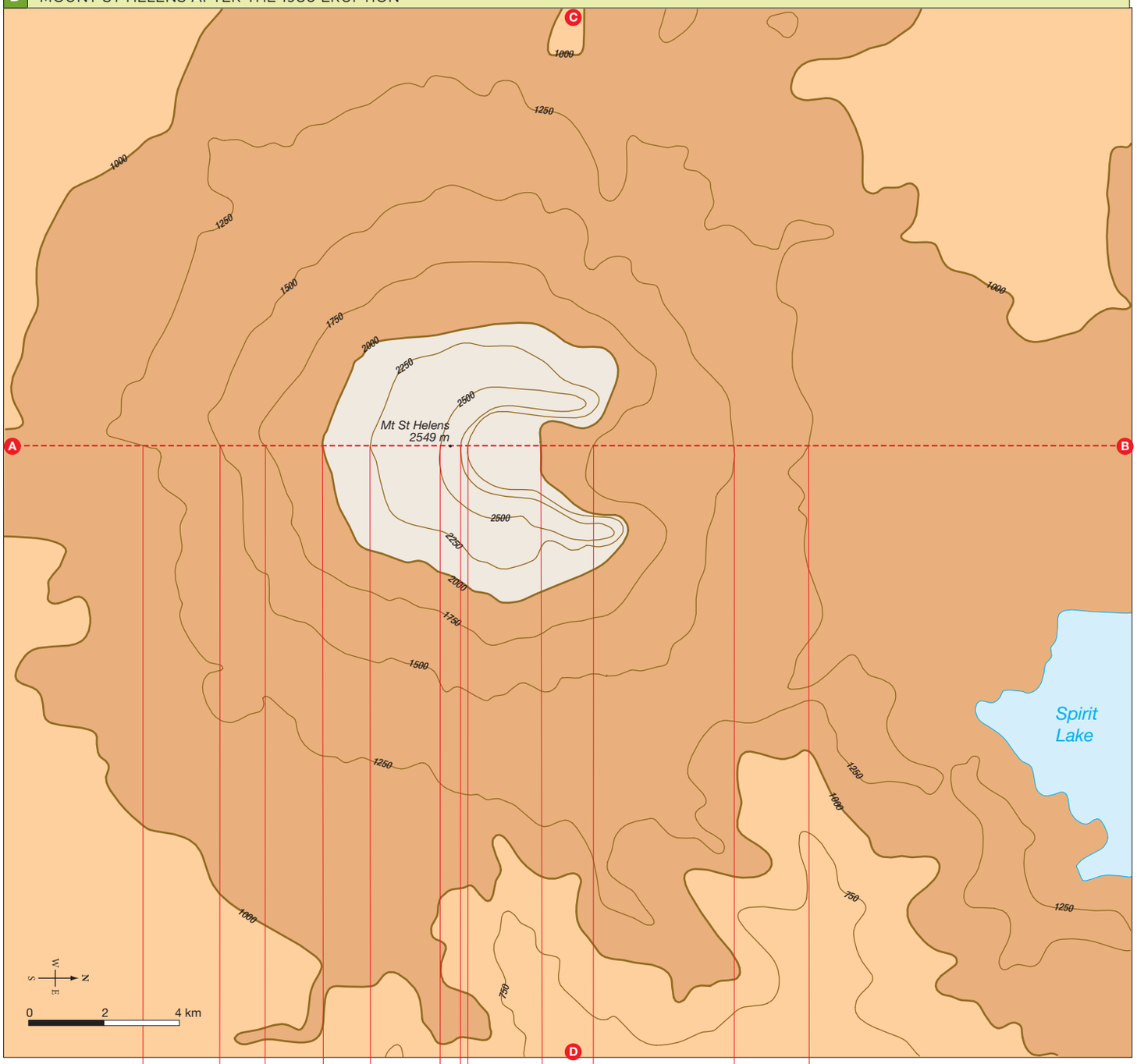
Source: Natural Earth Data, www.naturalearthdata.com

C *Digital terrain model (DTM) of Mount St Helens* ▶

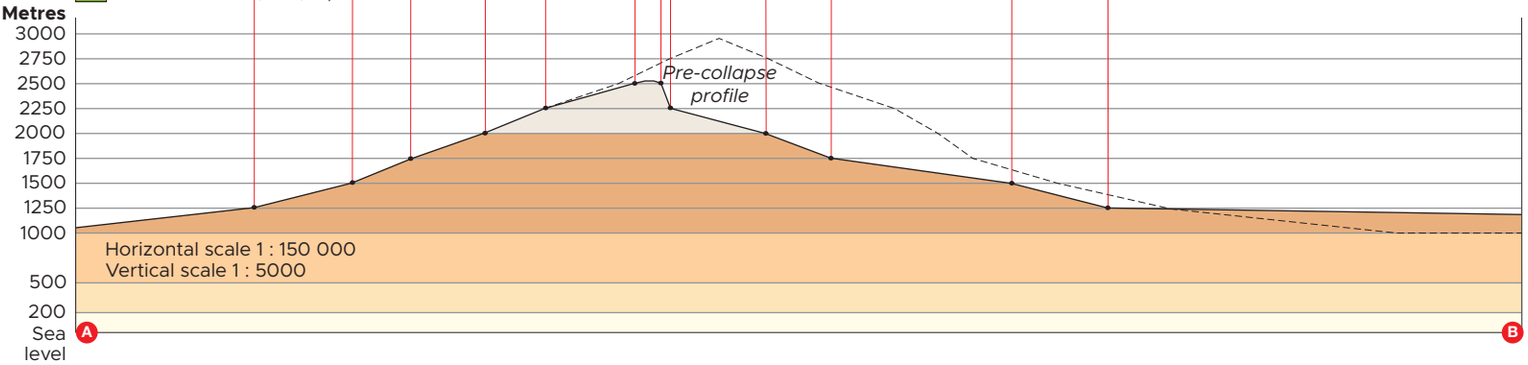


- Place the edge of a sheet of paper along the cross-section line.
- Mark the starting and finishing points, and the points where each contour line meets the edge of the paper. Write the values for each contour line.
- Draw a graph with a suitable vertical scale to make your cross-section look realistic (e.g. 5 mm on the *x*-axis represents 250 metres).
- Line up your marked-up piece of paper against the graph you have drawn. For each mark on your paper, make a corresponding dot on the graph at the matching elevation.
- Join the dots with a smooth line.
- Label the cross-section and the axes, and provide a title.

D MOUNT ST HELENS AFTER THE 1980 ERUPTION



E *Cross-section (A–B) of Mount St Helens*



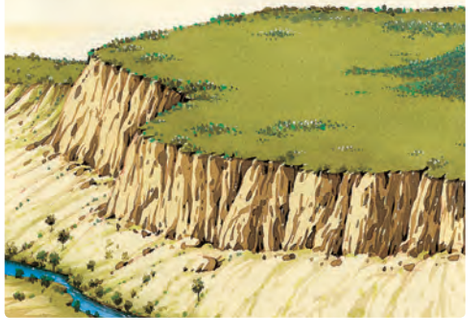
Recognising landforms

At first glance, topographic maps may appear confusing, as they contain a lot of information and have their own language and symbols. Contour lines on a topographic map join places that are the same height above sea level. They form patterns that show the shape of the land. By examining the contour lines and the distances between them, it is possible to identify whether the land is flat or gently sloping or has steep hills and valleys.

Contour lines represent a three-dimensional landform on a two-dimensional map. A skilled user of topographic maps can recognise the patterns of these contour lines and visualise the shapes of landform features. Common landforms found in **C** are illustrated in the other figures on this page **A** **B** **D** **E** **F** **G** **H**.

A PLATEAU

An extensive area of flat land higher than the land surrounding it. Contours surround an area with few or no contours.

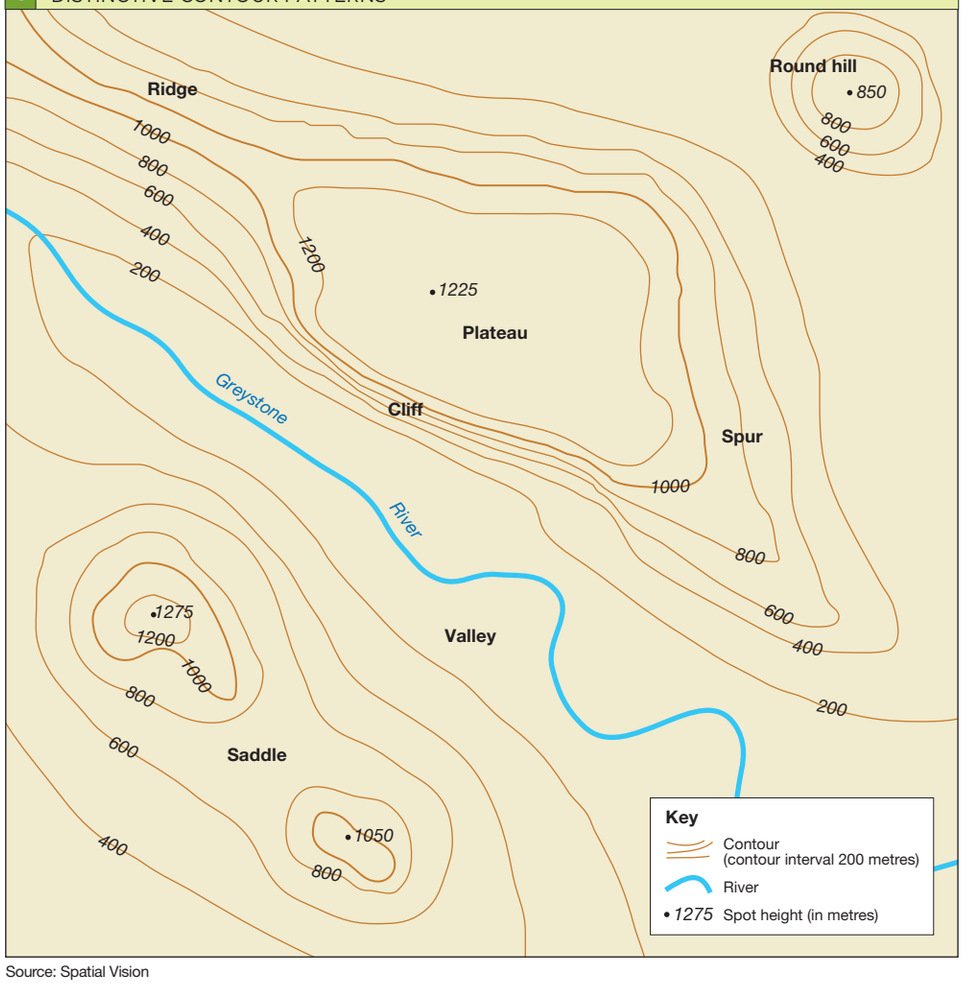


B ROUND HILL

A high, round piece of land. Contours form a round or oval shape.



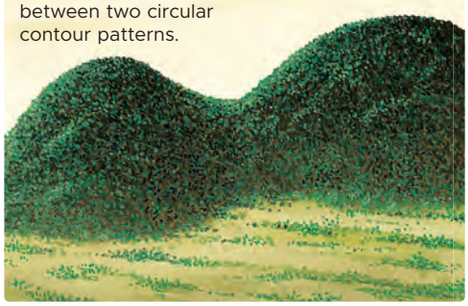
C DISTINCTIVE CONTOUR PATTERNS



Source: Spatial Vision

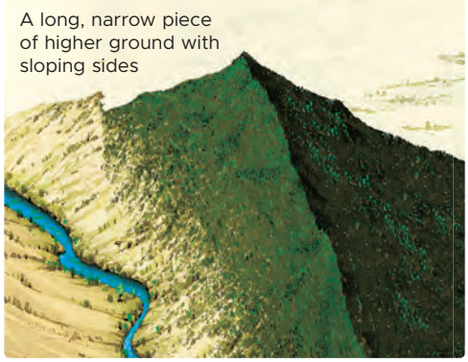
D SADDLE

An area of low land between two peaks. On maps it is often the lower area between two circular contour patterns.



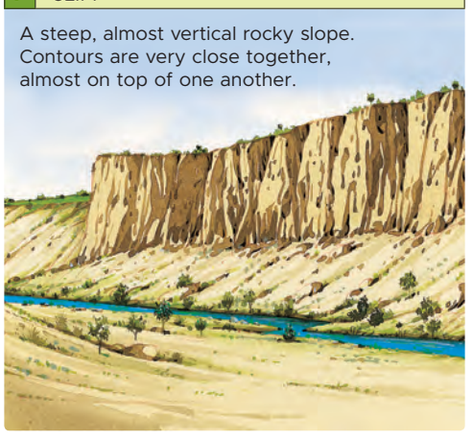
E RIDGE

A long, narrow piece of higher ground with sloping sides



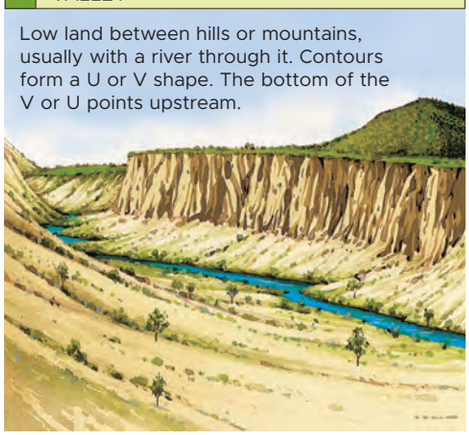
F CLIFF

A steep, almost vertical rocky slope. Contours are very close together, almost on top of one another.



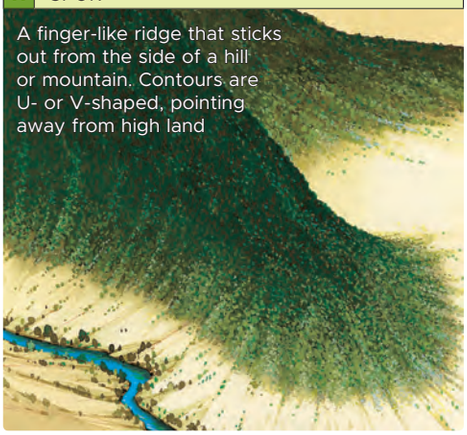
G VALLEY

Low land between hills or mountains, usually with a river through it. Contours form a U or V shape. The bottom of the V or U points upstream.

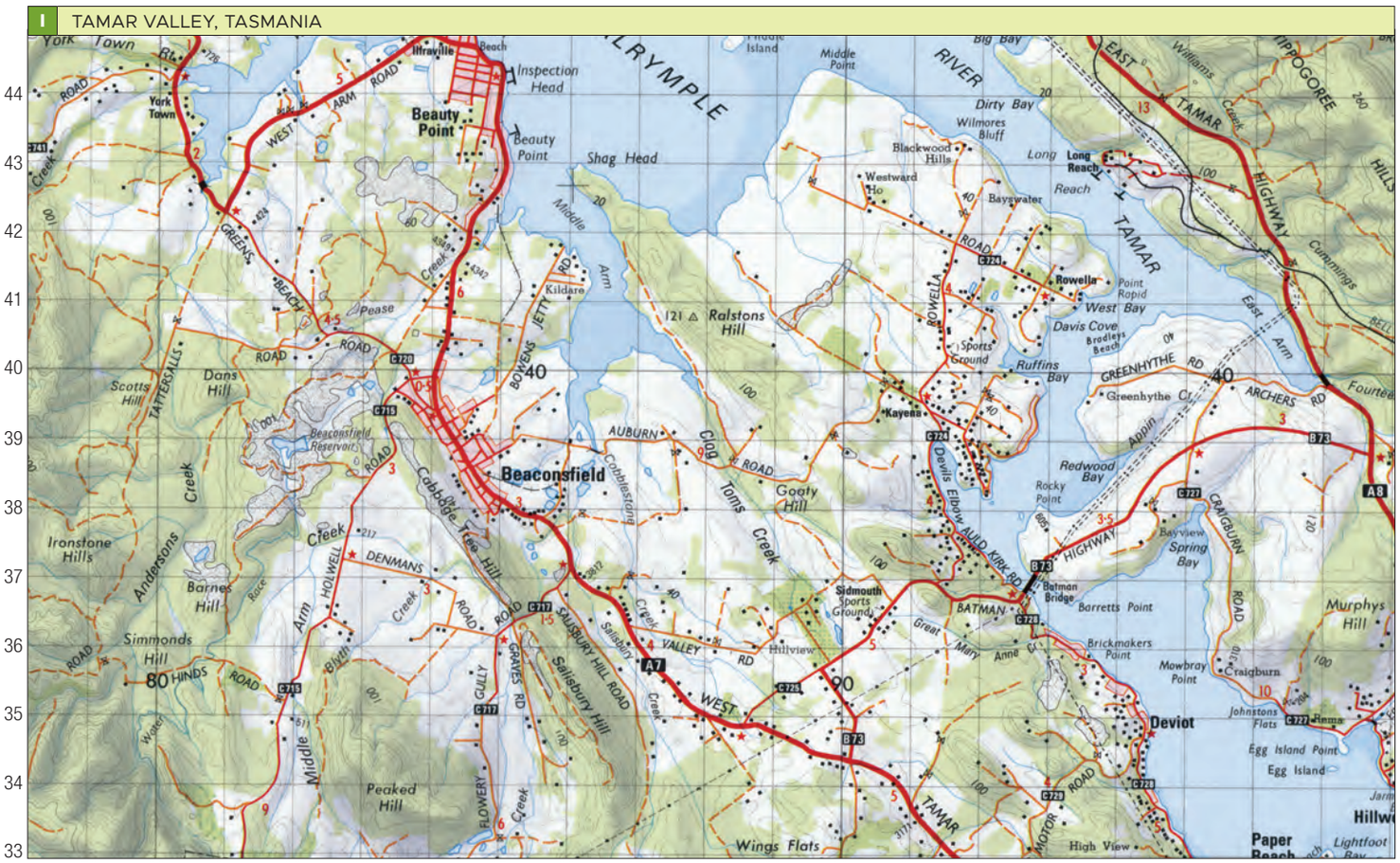


H SPUR

A finger-like ridge that sticks out from the side of a hill or mountain. Contours are U- or V-shaped, pointing away from high land



I TAMAR VALLEY, TASMANIA


Beauty Point
Beaconsfield
Deviot
Rowella
Ralstons Hill
Peaked Hill
Wings Flats
Paper Beach
Inspection Head
Shag Head
Dirty Bay
Wilmores Bluff
Blackwood Hills
Long Reach
Bayswater
West Bay
Davis Cove
Ruffins Bay
Redwood Bay
Spring Bay
Batman Bridge
Barretts Point
Brickmakers Point
Mowbray Point
Craigburn
Murphys Hill
Egg Island Point
Egg Island
Sidmouth Sports Ground
Hillview
Gooty Hill
Ralston Hill
Dans Hill
Scotts Hill
Ironstone Hills
Barnes Hill
Simmonds Hill
Andersons Creek
Toms Creek
Middle Arm
Pease Creek
Flowery Creek
Salisbury Hill Road
Cobblestone Tree Hill
Auburn
Kayena
Greenhythe Cr
Point Ropid
Fourteen
Johnstons Flats
Emma
Lightfoot Bay
Hillwood
High View
Motor Road
Tamar Highway
Tamar River
Tamar Island
Middle Point
Williams Creek
Cummings
Hills
Beauty Point
Ilfracombe
York Town
Rt
Beach
Kildare
Jetty Rd
Bowens Rd
Tattersalls
Beaconsfield Reservoir
Denmans
Holwell
Graves Rd
Gully
Hinds
Valley Rd
Great Mary Anne Cr
Batman
Allid Kirk Rd
Archers Rd
Greenhythe Rd
Grangburn Road
Abbin
Rocky Point
Devils Elbow
Bradleys Beach
Sports Ground
Westward Ho
Long Reach
Point Ropid
Cobblestone
Clog
Race
Birth
Water
Arm
Creek
Road
Rowella
Beach
Greens
Arm
Jetty
Bowens
Tattersalls
Denmans
Holwell
Graves Rd
Gully
Salisbury

Using topographic maps

Topographic maps

Topographic maps show the height and shape of the land using contour lines (see page 205). They also show features of the natural environment such as forests and lakes, and human features such as roads and settlements. Topographic maps use symbols to make it easy for map readers to quickly identify the features shown in the key or legend.

The topography of an area can strongly influence human activity. This was certainly the case on 25 April 1915, when the Australian and New Zealand Army Corps (Anzacs) landed on the Gallipoli Peninsula in Turkey. These troops were trying to take control of the Dardanelles Strait. The Anzacs landed in the dark on a narrow, crescent-shaped beach in an area called Arni Baru. This has since been renamed Anzac Cove **C** **D**. At the back of this beach are steep cliffs and narrow gorges, and this terrain made the fighting conditions very difficult **A**. Over 8000 Australians were killed and 19 000 wounded during this campaign.

Area and grid references

A grid is overprinted on a topographic map, such as map **D** on the opposite page. These grid lines are numbered with two-digit numbers on the map's margins. The grid numbers on the east-west or horizontal axis are called *eastings* and the grid numbers on the north-south or vertical axis are called *northings*. The numbers increase as you move north and to the east. In a grid reference, the *eastings* are given first and then the *northings*.

Four-digit area references tell you the grid square in which to find a feature. The letters AR are placed in front of a four-digit reference to show the area reference. For example AR3551 contains Chunuk Bair **B**.

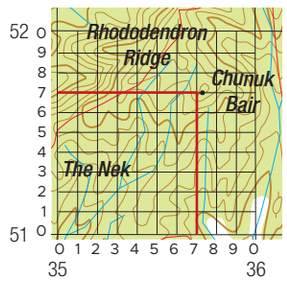
Six-digit grid references pinpoint an exact point in the grid square. The third and sixth digits represent one-tenth of the distance between the two grid numbers. These divisions are not written on the map, so they must be estimated. The letters GR are used in front of a six-digit grid reference. There are no spaces between four- or six-digit grid references. For example, Chunuk Bair's grid reference is GR357517.

A *The rugged terrain behind the cliffs of the landing beaches. The most distant ridge is Rhododendron Ridge* (GR352519)*, which leads to the hills of Chunuk Bair* (GR357517). ▼



Australian War Memorial negative number GO1810B

B *Finding Chunuk Bair's grid reference* ▼



C SATELLITE IMAGE OF THE GALLIPOLI PENINSULA



Source: Data available from the U.S. Geological Survey

ACTIVITIES

1. Examine the topographic map of the Gallipoli Peninsula **D**. What is located at the following places?
   (a) GR352503 (b) GR344523 (c) GR324541
2. Which river flows into the Aegean Sea at GR338528?
3. Identify the highest point on the Gallipoli Peninsula. Give its name, height and six-digit grid reference.
4. Use the satellite image **C**, photograph **A** and topographic map **D** to compare the characteristics at these two areas: AR3451 and AR3254.
5. Identify three pieces of information the Anzacs would have found useful from **C** and **D**.
6. What advantages would the topography (shape) of the land have given the Turkish troops over the Anzacs at Anzac Cove?
7. One suggestion had been for the Anzacs to land further south along the coast near Mount Kabatepe (GR339495). Examine this site and suggest how it might have been different from Anzac Cove.


D TOPOGRAPHIC MAP EXTRACT OF THE NORTH-WESTERN COAST OF TURKEY
Cape Buyukkemikli
Suvla Point
SUVLA BAY
Lake Tuzlagolu (salt water)
Lake Kucukgol (salt water)
Nibrunesi Point
Sigir enclosure
Ocean Beach
North Beach
Anzac Cove
Lone Pine
The Nek
Rhododendron Ridge
Chunuk Bair
Arifaorer Spring
Mt Kocacimen 303
Degirmen Spring
Susakiku
Cukur
Eni Spring
Ibrise Spring
Buyuk Cesme Spring
Kukurilu Spring
Suvla Plain
Keremit Headland
Police Station
Kucuk Anafarta
Buyuk Anafarta
Anafarti
Mt Ismailoglu 110
Mt Karakol 163
Mt Kavak 276
Mt Kavak 112
Tursun
Mt Ada 73
Sivli
Lake Uzunmzirli
Uzunhazarli
Kecili
Kumkoy
Mt Gaziler 259
Bahsi
Yalova
Mt Taslitepe 166
Mt Sarikiz 208
Zincirli
Sandikli
Bigali
Kurucadere
Mt Koz 114
AKBAS BAY
Cape Sestos
Karakuz
Harman
Mt Kabatepe 32
Mt Poyraz 142
AEGEAN SEA
DARDANELLES
Cape Abidos
Cape Nara
Kale
Komurdeposu
PALAMUTKUYU BAY
Azmak
Pirenovasi Valley
ECEABAD
ferry boat
Sulucadere
Cape Semer
CAMKUYU BAY
Cape Cimtepe
Mt Egerli 221
Cape Koze
Ceybidelik
Mt Kum
Mt Kayal 205
Harap Estate
Davutbey Farm
Mt Buyukkale
Kilitbahir
Cape Degirmen
DARDAN BAY
CANAKKALE
port
Hadji Mustafa Efendi
Kepirler Aerodrome
Ahmetaylik ruins
Mt Sehitlik 100
Karap Farm
Behramli
Mt Beylin 185
Sariacun River
Nohan River
Kurt River
Azmak River
Sazlik River
Siyenili River
Kavakli River
ISTANBUL
GREECE
Sea of Marmara
Map area
Canakkale
Dardanelles
TURKEY
AEGEAN SEA
0 100 200 km
40°15'N
40°10'N
26°15'W
26°20'W
26°25'W
Source: MAPgraphics
SCALE 1 : 100 000
kilometres 0 5 10 15 kilometres
sealed unsealed
Principal road; Built-up area
Secondary road
Minor road
Route marker: national; state
Powerline
Airport
Building/s; Vineyard
Fortress; Spring
Contour with value (interval 20 metres)
Mountain; Spot height (metres)
Scrubland; Forest
Watercourse; Gorge; Lake

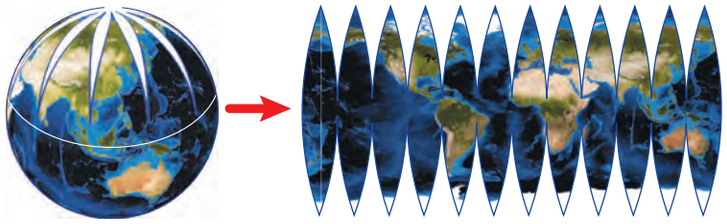
Map projections and time zones

Why have map projections?

A globe is an accurate scale model representation of the Earth. However, carrying a globe around is inconvenient and you can view only one hemisphere at a time. In contrast, flat maps are compact and easier to carry and store. Cartographers, or map makers, have devised ways of representing the curved surface of the Earth on a flat piece of paper. These are called map projections C. You will encounter different examples of these projections throughout this atlas A B.

Transferring maps from the globe to a flat surface is complicated and difficult. If you tried to flatten a tennis ball, the sides would split, and the shape would be changed. The same thing happens when you try to take a globe and flatten it onto a piece of paper B. The shapes of landmasses on the globe become distorted.

A *One way to make a flat map from a globe is to divide the Earth into segments along the lines of longitude.* ▼

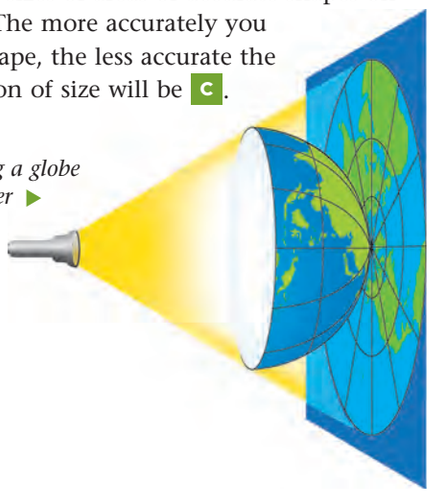


What is a map projection?

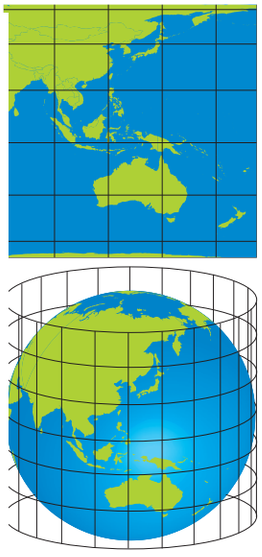
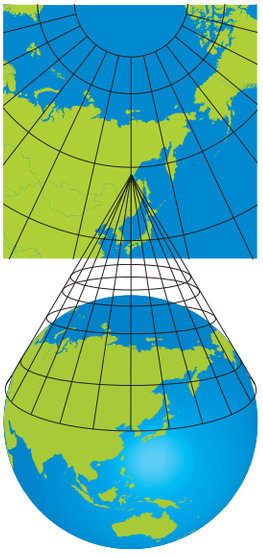
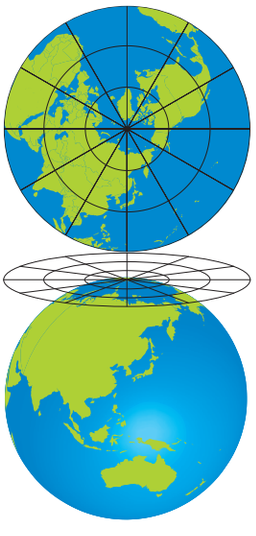
Imagine placing a torch in the centre of a translucent globe and 'projecting' this onto a piece of paper that is wrapped around this globe. The light casts shadows of the lines of latitude and longitude onto the paper's surface. Maps can then be drawn from these. The surfaces most commonly used for projection are a cylinder, a cone and a plane (or flat surface) B.

Cartographers must consider which projection is most important for their purpose. Is it more important to show the accurate sizes of areas or accurate shapes on their map? The more accurately you represent shape, the less accurate the representation of size will be C.

B *Projecting a globe onto paper* ▶



C **Comparisons of various map projections** ▼

	Cylindrical	Conical	Azimuthal
Projection	The globe's surface is projected onto a surrounding cylinder. This cylinder touches the outside edges of the globe, usually along the Equator.	The globe's surface is projected onto a cone that touches the outside edges of the globe along a single line of latitude. This is called a standard parallel. (Example: pages 14–15)	The globe is projected onto a flat surface. This touches the globe at only one point, which is usually a pole. (Example: page 115)
Diagram			
Features of the projections	• Maps are rolled out from the cylinder and present a flat map. • Shapes are shown correctly, but size is distorted. • Shows the whole of the Earth's surface on one map or regional/ national maps of regions near the Equator. • Distortion of maps increases closer to the poles, e.g. Greenland appears to be many times larger than it really is.	• Maps are fan shaped and show only one hemisphere. • Shapes are shown correctly, but size is distorted. • Used for smaller maps and for countries that are larger in an east–west direction than north–south, e.g. Australia. • Distortions are small along the standard parallel line but increase away from this line.	• Scale is accurate near the centre point. • Usually used to show a continent or the poles. Polar areas are represented with minimum distortion. • Distortions of scale and shape increase away from the centre point.

World time zones

Before the late nineteenth century, people only had to worry about what time it was where they lived. Each town set its clocks to noon when the sun was at its highest point in the sky each day. With improved communication and transport, especially railways, a more uniform system of time keeping was needed to avoid confusion. In 1884 a system of 'standard time' and time zones was introduced. It was decided that time would be calculated east or west from the Prime Meridian (0° longitude), which runs from the North Pole to the South Pole through Greenwich, a suburb of London D.

The Earth is divided into 24 time zones and each one covers 15° of longitude. This is based on the Earth rotating 360° once every 24 hours E. Places located east of the Prime Meridian, such as Australia, are considered to be 'ahead' of Greenwich Mean Time (GMT), while those to the west, like the USA, are considered 'behind' GMT.

D *Prime Meridian at the Royal Observatory, Greenwich, London* ▼



International Date Line

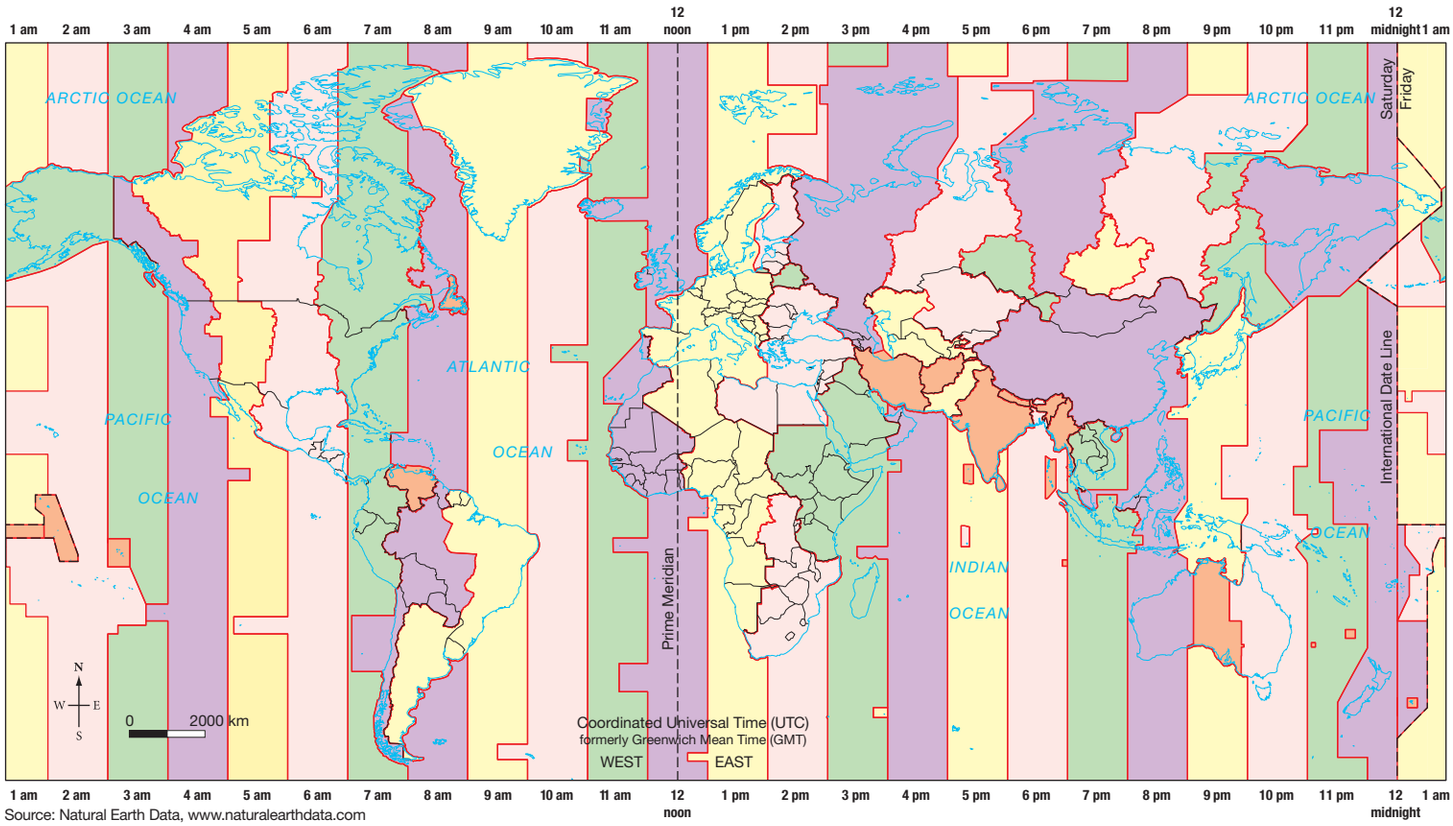
On the opposite side of the world from the Prime Meridian lies the International Date Line at 180° longitude.

The boundaries of standard time zones do not always coincide with lines of longitude, as some governments may decide that it is more convenient to have irregular zones. Dividing a country or a city into two time zones because a line of longitude runs through it may cause problems. If you travel overseas, you will need to be aware of the time zones that operate in the places you are planning to visit.

ACTIVITIES

1. What difficulties do cartographers have in depicting the Earth's surface on a flat map?
2. What choices do cartographers make when they are constructing a map?
3. Identify three different types of map projection used in this atlas. Give their page numbers and map titles.
4. What is the International Date Line? Examine the map of the world on the inside back cover of this atlas and explain why the International Date Line is not a straight line.
5. Identify three occasions when it would be useful to know what the time is in another part of the world.
6. How many time zones does China have? What might the advantages and disadvantages of this be?
7. If 15° of longitude represents an hour, each degree of longitude represents a difference in time of how many minutes?
8. Three locations in Victoria (page 35) have different longitudes: Lakes Entrance (148°E), Melbourne (144°E) and Portland (141°E). How many minutes ahead or behind Melbourne is each of these towns?
9. In which of the towns in question 8 would the sun rise earliest?
10. Suggest why the towns in question 8 all operate on the same time.

E WORLD TIME ZONES



Source: Natural Earth Data, www.naturalearthdata.com

Places to the west of the International Date Line are always one day ahead of places immediately to the east of the International Date Line.

Key
Zone with intermediate time difference

If you travel east across the International Date Line from Sydney to Los Angeles, you 'gain' a day. If you travel west across the International Date Line on your return, you 'lose' a day.

Describing patterns

Geographers need to be able to identify patterns and trends in maps and other visual geographic diagrams to 'unlock' the information contained within them. Maps, for example, can reveal spatial patterns that help us understand why things are where they are and can help us plan for future changes.

Geographers use particular terminology to describe the patterns they see on maps. The word 'distribution' means the arrangement of features on the Earth's surface. **A** shows diagrammatically various distribution patterns you might see on maps.

Below is a question and a sample answer that you might be asked about maps, photographs and graphs. The sample answer has been provided to model a way in which you might answer the question.

Question 1

Refer to figure **B**. Describe the distribution of McDonald's outlets in the USA.

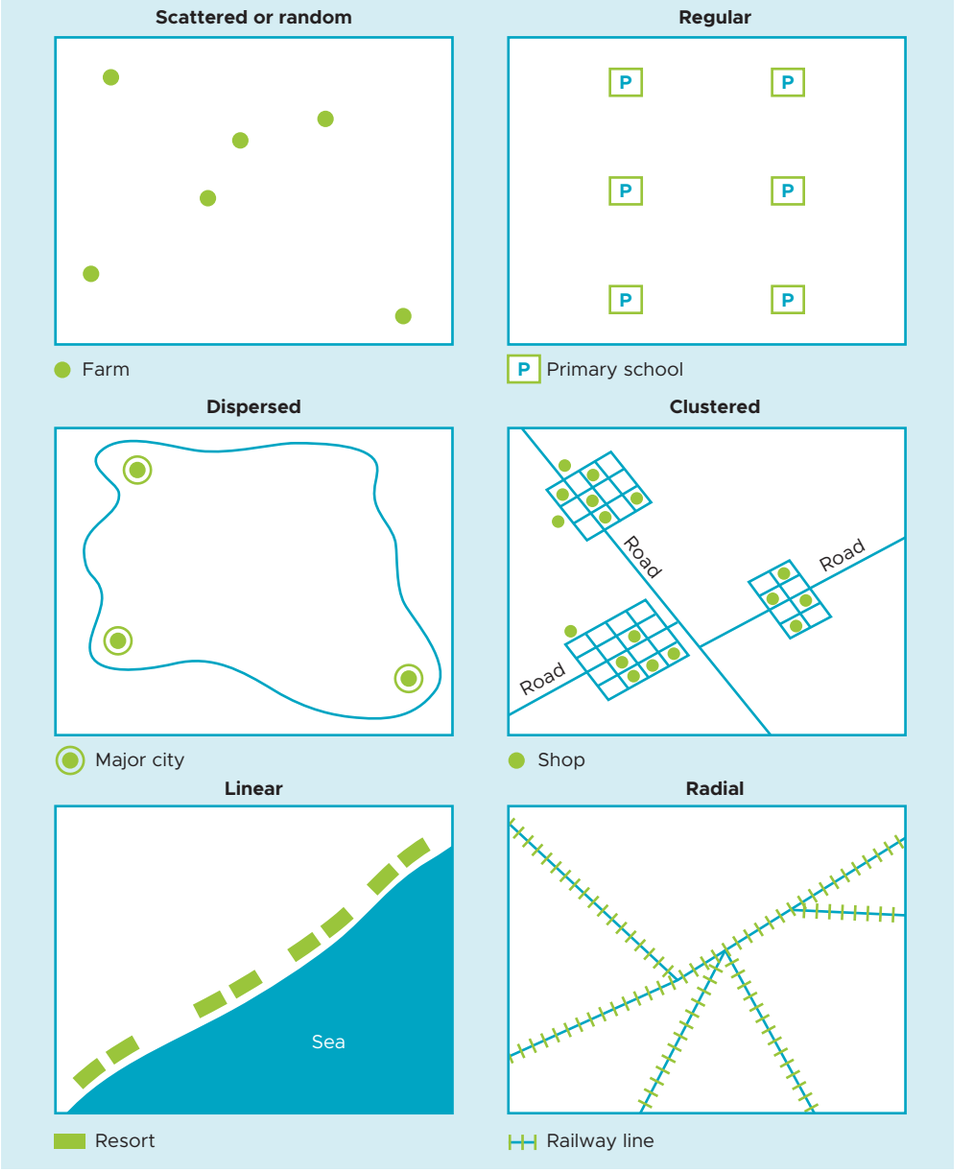
What is the first thing that strikes your eye? When you first look at the map you might notice that the eastern half of the country contains many more dots, and they are much closer together than they are in the western half. If you look more carefully at the map, you might be able to identify examples of scattered (or dispersed), clustered, regular and linear distribution patterns **C**.

Using a map of the USA (such as on pages 106 to 107 of this Atlas), you can then match up patterns on the map with place names in those areas. Refer to the sample answer below.

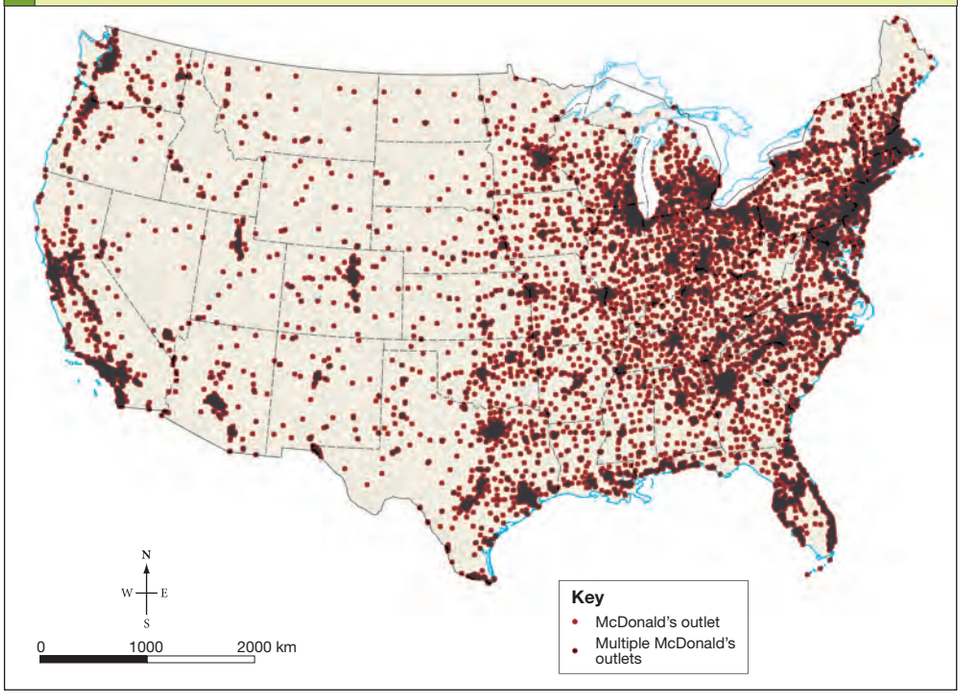
Sample answer

While McDonald's outlets are scattered throughout every state in the USA, they are concentrated mainly in the eastern half of the country. They are more dispersed in the western half of the USA. Exceptions to this are the clusters along the coast between Los Angeles and San Francisco. There are also linear concentrations of outlets, such as in the north-east region, between Boston and Washington, D.C. Over three-quarters of all the outlets seem to be located in the eastern half of the USA.

A *Common distribution patterns* ▼



B DISTRIBUTION OF MCDONALD'S OUTLETS IN THE USA



Source: Spatial Vision

Geographers use GEQ to help them write about patterns they see on maps.

G — G stands for general pattern
E — E stands for exceptions
Q — Q stands for quantify

The previous sample answer includes all three aspects of the GEQ technique.

Similarly we can identify patterns and trends in graphs contained in this atlas. Refer to question 2 below.

Question 2

(a) Describe three main trends evident in **D**.
(b) Compare what will happen to the size of Delhi and Shenzhen by 2035, if current population growth trends continue **E**.

To answer question 2a, try to identify:

- the type of change, if any (increase, decrease, steady, variable)
- the rate of change (slow, rapid)
- general patterns that emerge for the chosen examples in the graph
- ways to quantify by working out some figures from the graph.

Sample answer

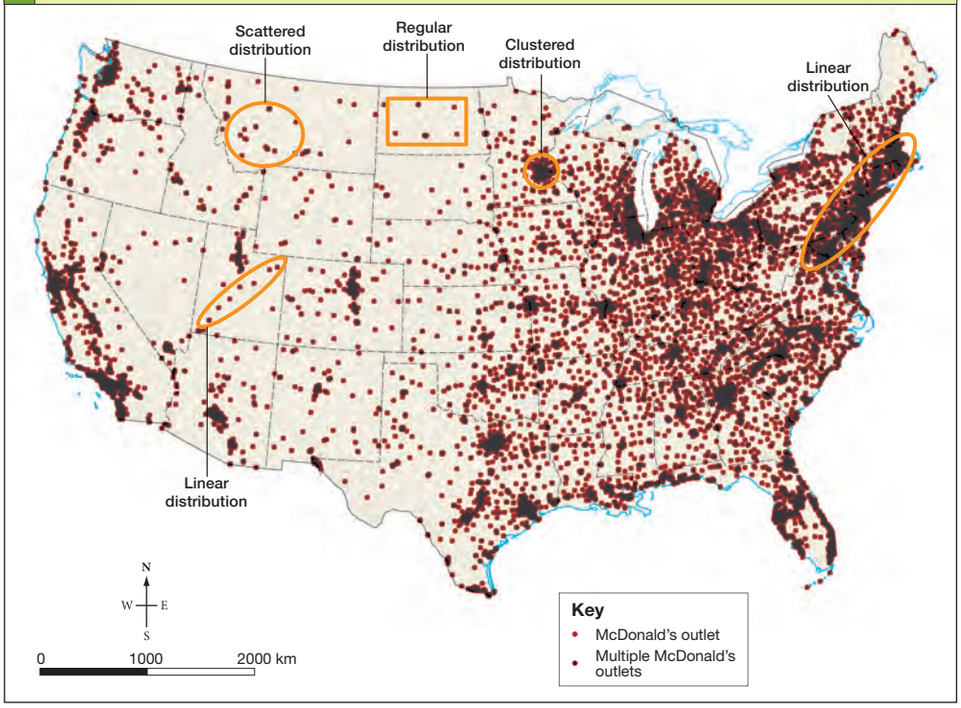
(a) One main trend evident in the graph is the explosion in population in Delhi, which has increased by nearly 5 times between 1980 and 2025. Over the same period, Jakarta witnessed much smaller growth of approximately 4 million. Shenzen witnessed the most rapid rise, from just over 1 million to approximately 7 million during the 1990s.

To answer question 2b try to imagine, or draw, lines to show what will happen **E**.

Sample answer

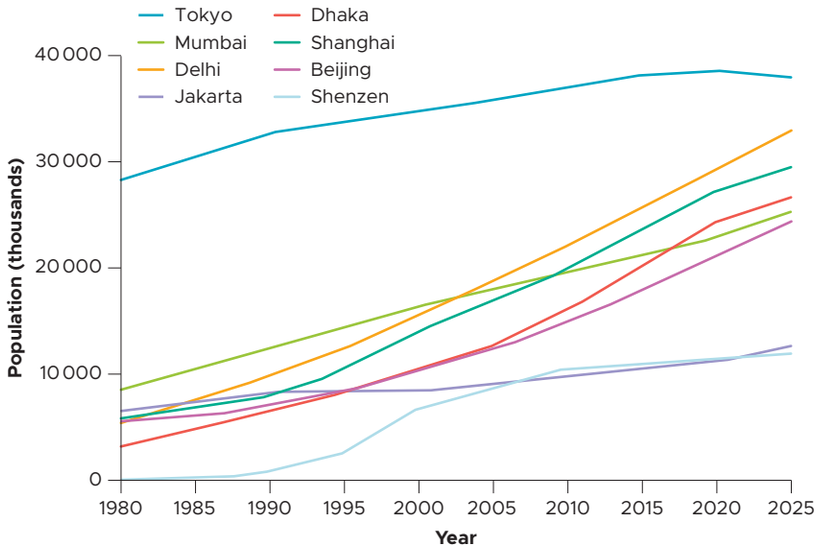
(b) The population of Delhi in 2015 was approximately 25 million, while Shenzhen's population was 11 million. Given the growth rate over the previous 10 years, Delhi would be projected to reach 40 million by 2035, while Shenzhen will only increase to approximately 14 million.

C EXAMPLES OF DISTRIBUTION PATTERNS

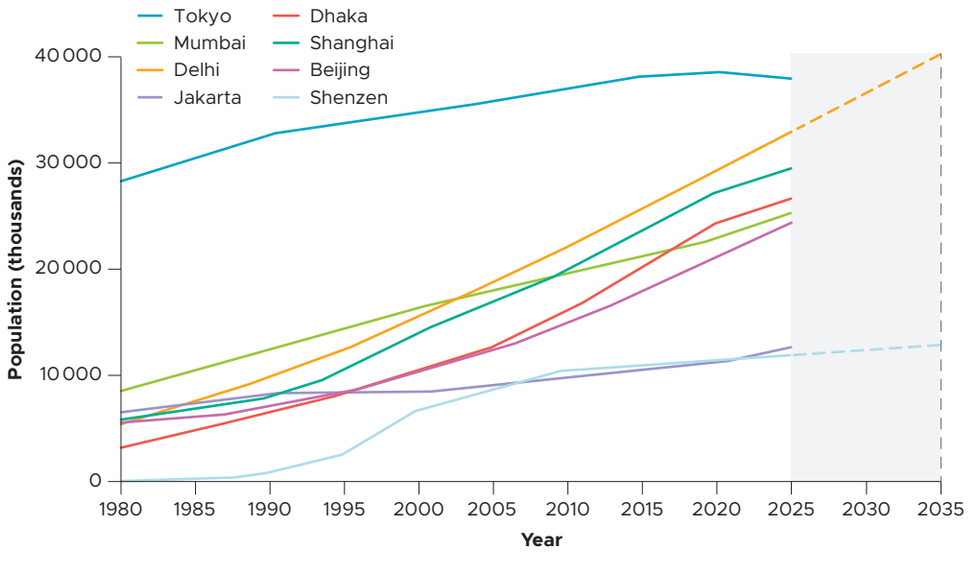


Source: Spatial Vision

D *Population of selected Asian cities, 1980–2025*



E *Population of selected Asian cities, 1980–2035*



Angel Road, Shodo Island, Japan

Geographical concepts can be applied to images (such as the one below showing Angel Road), maps and other geographical data. The concepts of space, place, interconnection, change, environment, sustainability and scale can help you analyse and understand a range of geographical situations.

Environment

An environment is the physical and/or human-built world around us. This coastal environment includes a forested, rocky island together with sand deposits and the coastal waters of the Inland Sea. People use and manage this environment but have not built it.

Place

Place is an identified location or area on the Earth's surface that has meaning for people. This place is Shodo Island, southern Japan at 34°28' N, 134°14' E.

Scale

Scale is about the way geographical features and situations can be investigated at different levels. This scene features local activity by people within the wider region of the Inland Sea.

Change

Change is the way something alters over time. At high tide, the sandbar is covered by water and the rocky island cut off from the mainland. Stormy waters erode the sand deposits, while calmer waters allow them to rebuild.



Space

Space is about where things are located and distributed on or above the Earth's surface and how they are organised and managed by people. Space here allows people to walk along a sand bar or tombolo to a small, rocky island in Japan's Inland Sea.

Sustainability

Sustainability is about maintaining the capacity of the environment to support the lives of people and other living creatures now and into the future. Management in this region has helped protect its features over many decades. Natural events, such as tides and storms, have seen the features erode but also rebuild.

Interconnection

Interconnection identifies the links between features and the consequences of these links. There are interconnections between people walking along the sand bar and another interconnection between the tides building up and washing away parts of the sandbar.



How to use the Statistics interactivity

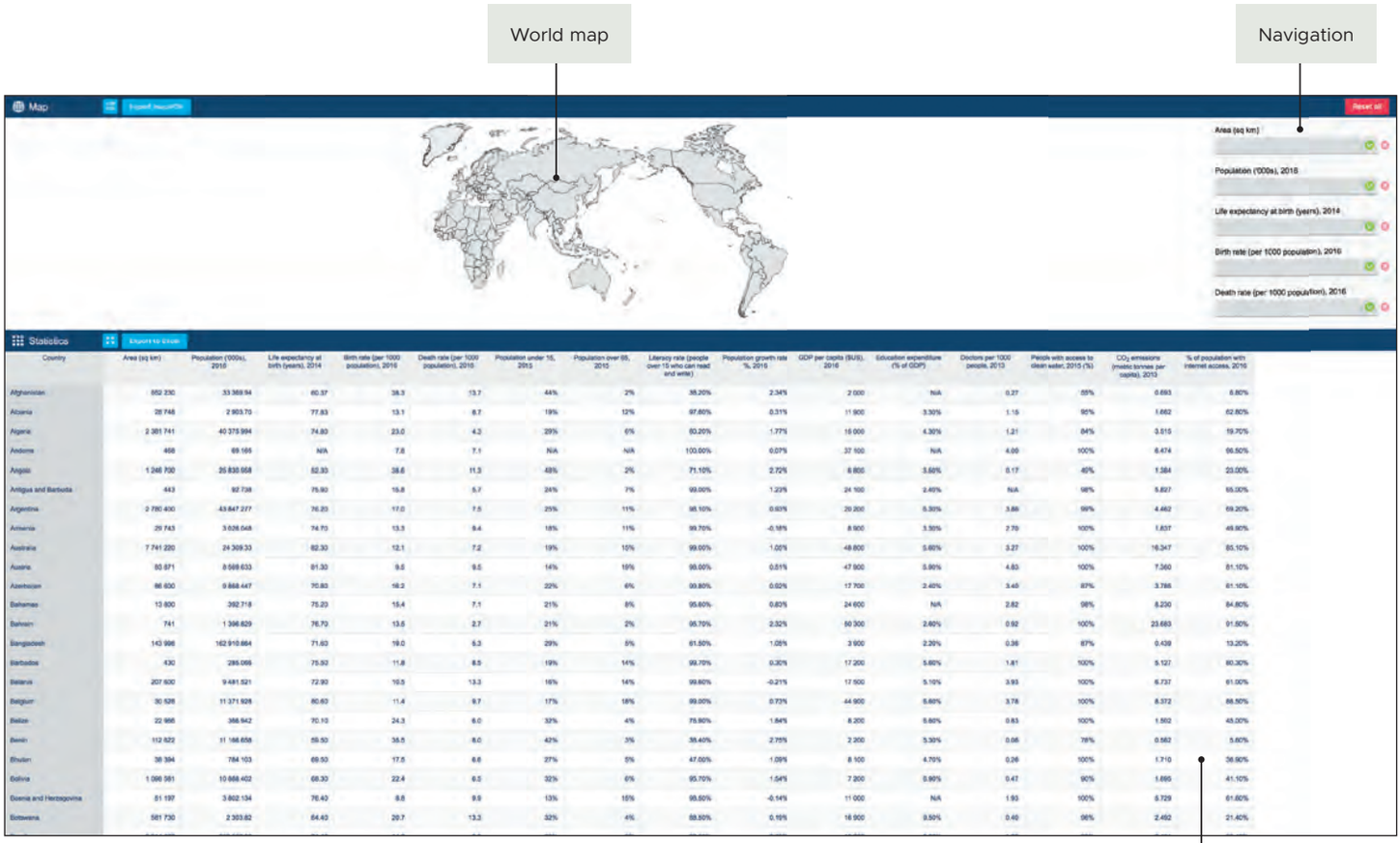
The *World statistics* section contains data for each country of the world, including:

- area
- population
- life expectancy
- birth rate
- death rate
- population under 15
- population over 65
- literacy rate
- population growth rate
- GDP per capita
- education expenditure
- doctors per 1000 people
- people with access to clean water
- CO_2 emissions per capita
- % of population with internet access.

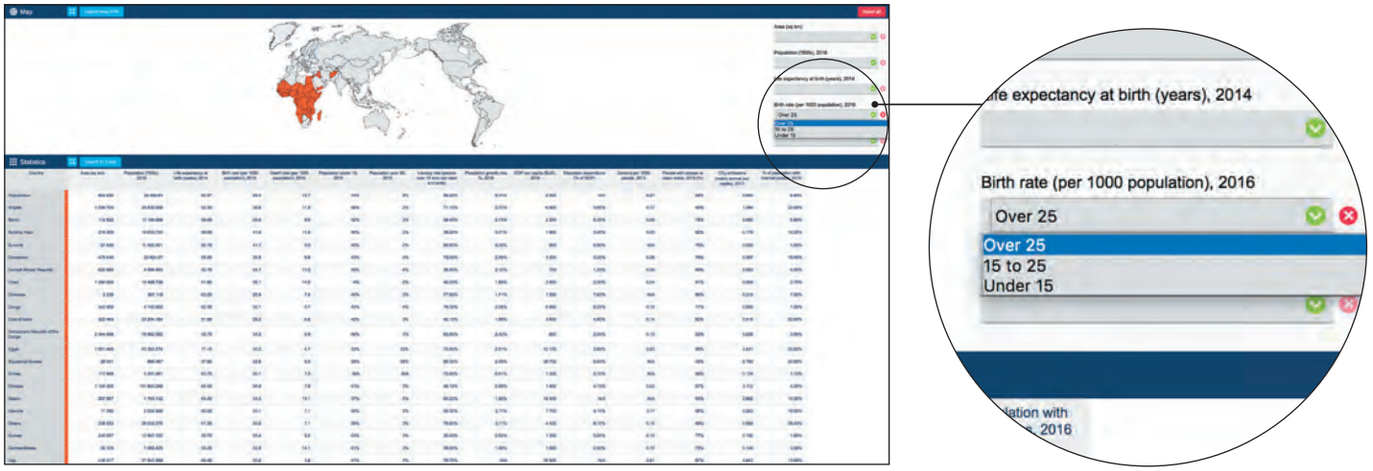
This section contains data on a range of environmental and human indicators. Data can be obtained from the Resources panel of the *World statistics* section in your eBookPLUS. Data is updated annually to ensure it is as current as possible.

When you open up the interactivity in the Resources panel you will notice three interactive sections:

1. a navigation screen that allows you to select categories to map
2. a world map that displays the data you select in map format
3. a table of statistics for each country.

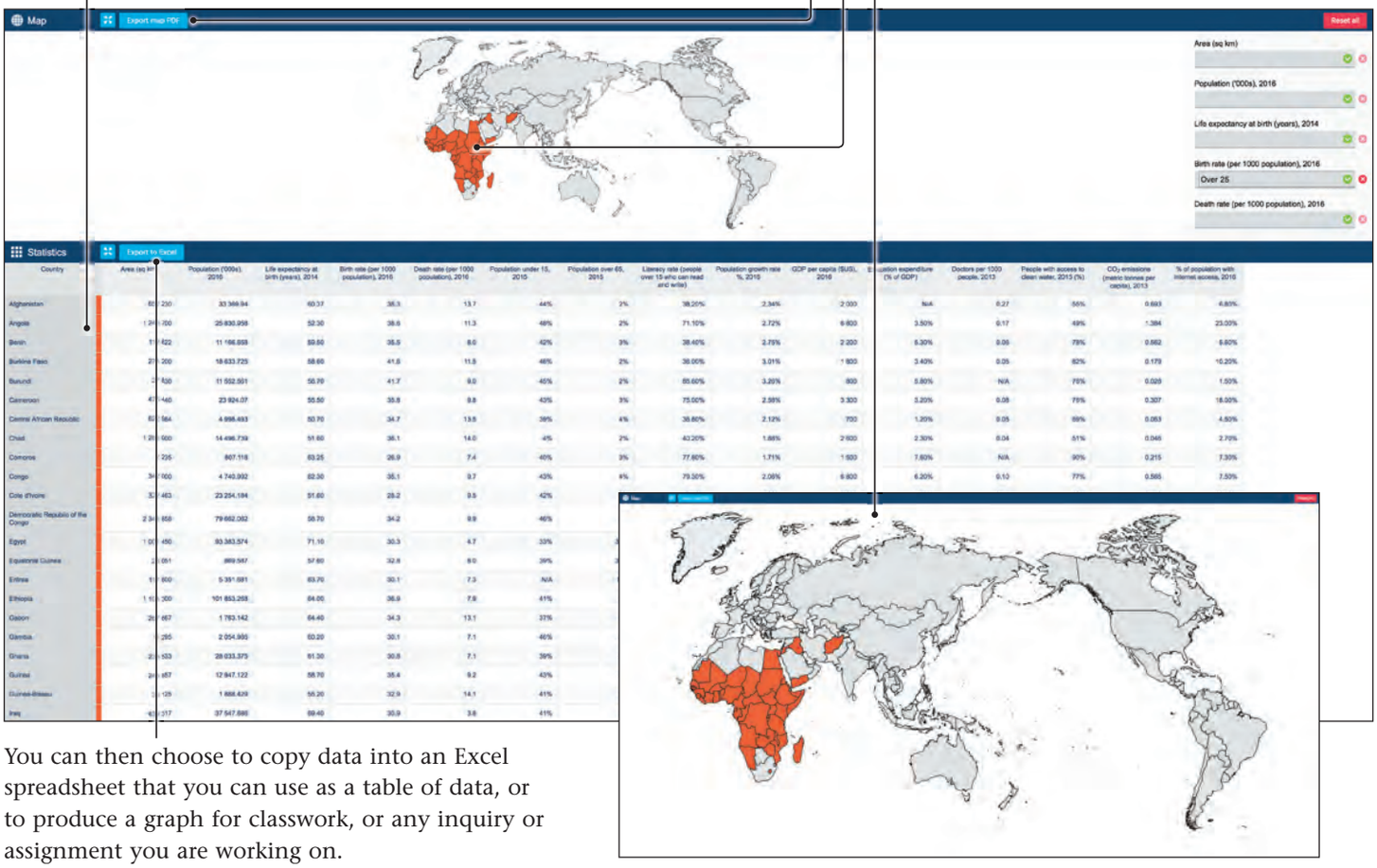


The navigation screen allows you to find, for example, a list of countries with high (over 25 births per 1000 people), medium (15 to 25) and low (under 15) birth rates.



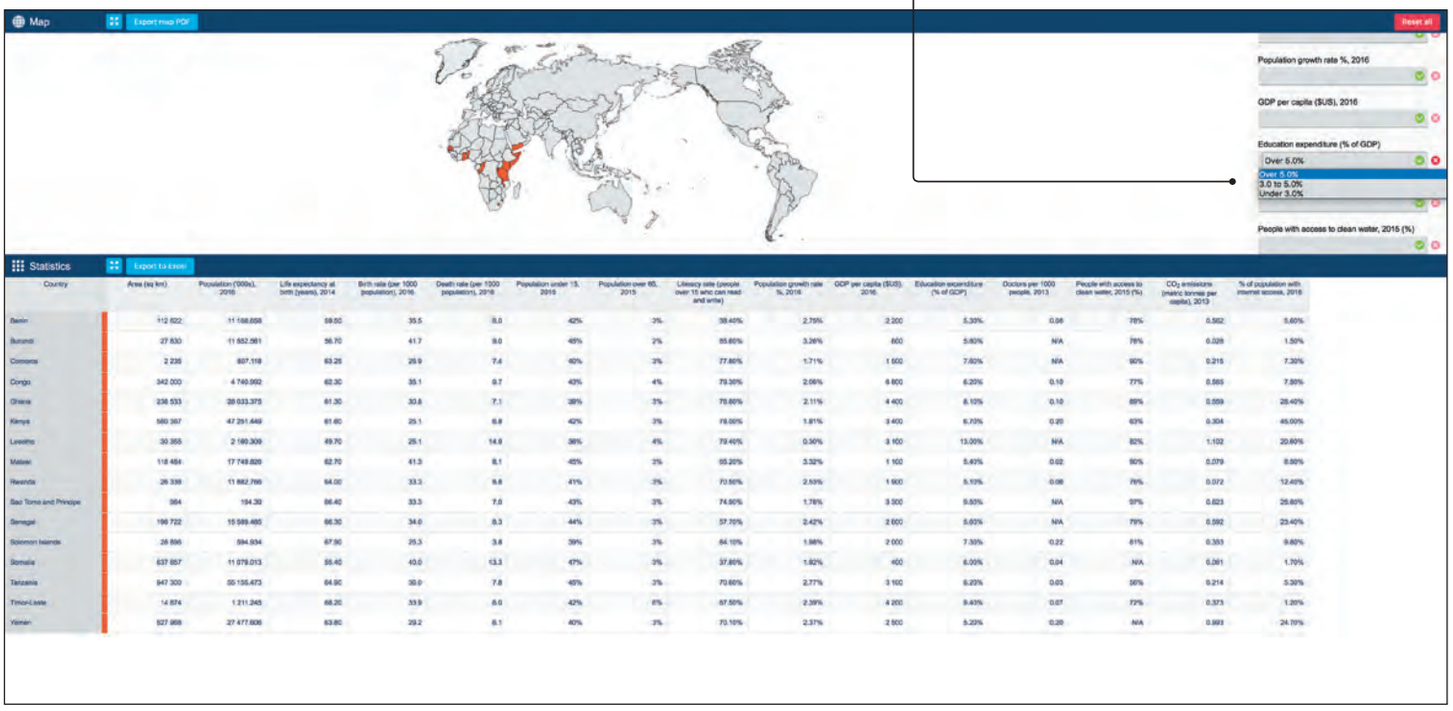
A scrollable list of countries with high birth rates (if you choose 'Over 25') will appear in the statistics table.

You will notice that data is mapped in the statistical mapper so that you can instantly see where those countries with high birth rates are located and distributed. The map can be enlarged and it can be saved or exported to PDF format.



You can then choose to copy data into an Excel spreadsheet that you can use as a table of data, or to produce a graph for classwork, or any inquiry or assignment you are working on.

You can refine your map. For example, to see countries with a high birth rate and high expenditure of education, select the 'Over 5.0%' category in the navigation screen.



The table of statistics and the statistical mapper are useful tools for Geography students to readily access reliable and up-to-date statistics, and to efficiently map data of their choice.

How to use the gazetteer index

The gazetteer index is a list or directory of the place names and geographic features that appear in this atlas. These places appear in alphabetical order. Each entry starts with the name of the place or feature. This is followed by the number of the page on which the name appears, then its alphanumeric reference and then its latitude and longitude. This is how the entry for Chicago, United States, appears:

Chicago **109** F4 *41° 50′ N 87° 45′ W*

Entry	Page	Reference (alphanumeric)	Latitude ° ′	Longitude ° ′
Chicago	**109**	F4	*41° 50′ N*	*87° 45′ W*

Features of the gazetteer index

- Where there is more than one place with the same name, the name of the country decides the order in the index.

  Melbourne, Australia **35** D2
  37° 49′ S 144° 58′ E

  Melbourne, United States of America **111** E3
  28° 5′ N 80° 36′ W

  The same applies to Australian states.

  Burra, New South Wales **31** E3
  35° 33′ S 149° 14′ E

  Burra, South Australia **43** G4
  33° 40′ S 138° 56′ E

- Coloured lettering has been used to make it easier to locate some places.

  Blue applies to water bodies such as lakes, rivers, bays and creeks. For example:

  Moreton Bay

  Brown applies to landforms such as capes, mountains, islands, peninsulas, reefs and regions like Polynesia. For example:

  Moreton Island

  Green applies to national parks. For example:

  Nullarbor National Park

- All water bodies and landforms that begin with a geographical word, such as Mount, Cape, Point and Lake, are reversed.
  - Point Lonsdale becomes: Lonsdale, Point
  - Lake Eyre becomes: Eyre, Lake

  However, Lake Eyre National Park remains as Lake Eyre National Park, as does the town of Lake Bolac.

- No latitude or longitude is given for:
  (a) features that extend over large areas (such as seas, deltas, glaciers and deserts)
  (b) rivers that flow for long distances.
  Only a page number and an alphanumeric reference are given for these. For example:

  Nile Delta **83** B4

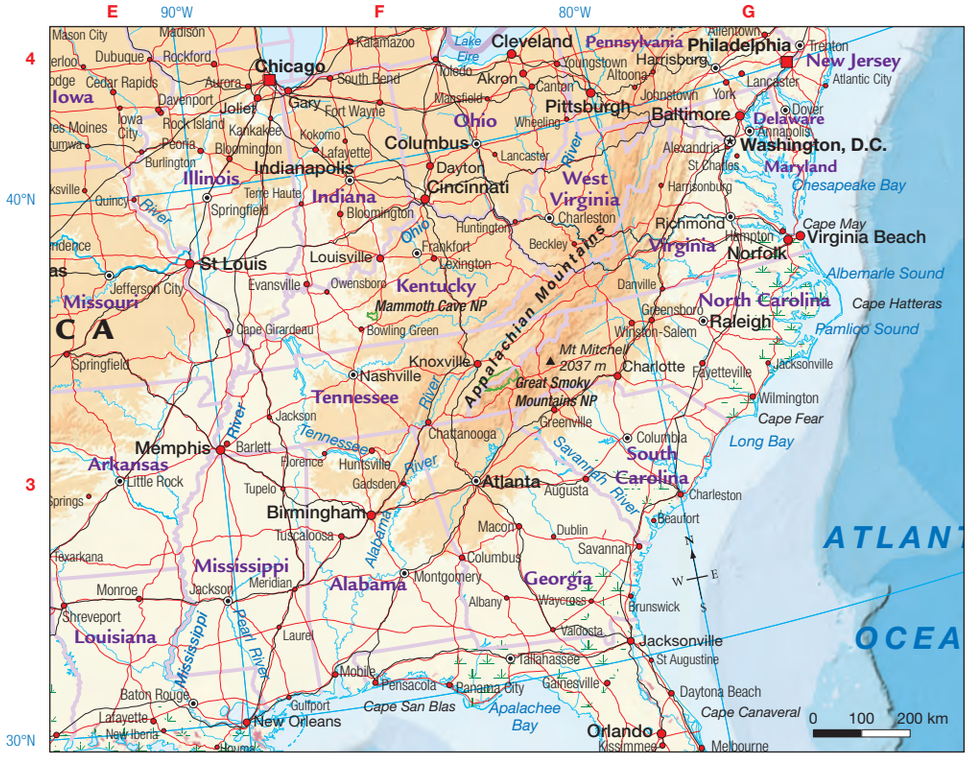
- The alphabetical order is the same as in a dictionary. It operates letter by letter rather than word by word, ignoring spaces and commas. For example:

Newfoundland	Portland Bay
New Guinea	Portland, Cape
Newman	Portland, USA

The exceptions are places beginning with the abbreviations St and Mc. These appear as if they were spelled out in full (Saint and Mac). For example:

Saint-Etiennne	McArthur River
St Francis	MacDonald, Lake
St George	Macedonia

A EXTRACT OF MAP OF SOUTH-EASTERN UNITED STATES



Source: Natural Earth Data www.naturalearthdata.com / ETOPO1 / WDPA

ACTIVITIES

1. Examine **A**. Use the gazetteer index and give the page number, alphanumeric reference, and latitude and longitude of the following places.
   (a) Nashville
   (b) Columbus, Ohio
   (c) Atlanta
   (d) Louisville
   (e) Montgomery
   (f) New Orleans
2. Record the information in the gazetteer index for these places.
   (a) Great Smoky Mountains National Park
   (b) Appalachian Mountains
   (c) Ohio River
   (d) Mammoth Cave National Park
3. What information is provided for the places identified in question 1 but is not provided for those places in question 2? Explain why this is the case.
4. (a) A number of places on this map share the same name. These include Charleston, located in **(G3)** and **(F3)**; Columbus located in **(F3)** and **(F4)**; and Springfield, located in **(F3)** and **(E3)**. Locate these six places. Identify the state in which they are located, and list the order in which they would appear in the gazetteer index. Explain your answer.
   (b) Record the information listed in the gazetteer index for these places.
   (i) Lake St Clair
   (ii) Pamlico Sound
   (iii) Cape Fear
   (iv) St Louis
   (c) In part (b), how was locating (ii) different from locating (i), (iii) and (iv)?
   (d) Identify the two entries on either side of St Louis, USA, in the index.

Answers

1 (a) Nashville **109 F3** *36° 10′ N 86° 47′ W*
(b) Columbus, Ohio **109 F4** *39° 59′ N 82° 0′ W*
(c) Atlanta **111 D4** *33° 50′ N 84° 24′ W*
(d) Louisville **109 F3** *38° 14′ N 85° 45′ W*
(e) Montgomery **110 D4** *32° 22′ N 86° 17′ W*
(f) New Orleans **110 D3** *30° 0′ N 90° 3′ W*

2 (a) **109 F3** (b) **109 F3** (c) **109 F3** (d) **109 F3**

3 In question 2 the latitude and longitude are not supplied because these places cover large areas rather than being located at one specific place like the cities in question 1.

4 (a) Charleston, South Carolina; Charleston, West Virginia; Columbus, Georgia; Columbus, Ohio; Springfield, Illinois; Springfield, Missouri. They appear in alphabetical order according to the name of the city and then the state.
(b) (i) **39 D3** (ii) **109 G3** (iii) **111 E4**
(iv) **109 F3** *38° 38′ N 90° 15′ W*
(c) The entries for (i) and (iii) appear alphabetically under St Clair and Fear, and not under Lake or Cape. Pamlico Sound appears in the index with the words in the same order as the title of the sound.
(d) Saint-Louis, Senegal and St Lucia.

Gazetteer index



Entry / **Page** / **REF.** / *Lat.°′* / *Long.°′*

A

Aalborg **85** **F4** *57°2′N 9°55′E*
Aarhus **85** **E4** *56°9′N 10°13′E*
Aba **100** **B5** *5°6′N 7°21′E*
Abadan **83** **C4** *30°20′N 48°17′E*
Abadla **90** **D3** *31°1′N 2°44′W*
Abakan **75** **D5** *53°42′N 91°27′E*
Abancay **116** **B2** *13°38′S 72°53′W*
Abashiri **77** **G5** *44°4′N 144°16′E*
Abau **23** **C5** *10°3′S 148°34′E*
Abaya, Lake **101** **E5**
Abaza **81** **H5** *52°39′N 90°04′E*
Abbottabad **81** **F3**
34°9′N 73°13′E
Abeche **99** **F3** *13°50′N 20°50′E*
Abeokuta **100** **B5** *7°10′N 3°21′E*
Abercrombie River National Park **27** **F2**
Aberdeen, United Kingdom **84** **D4** *57°10′N 2°5′W*
Aberdeen, United States of America **109** **E4**
45°28′N 98°29′W
Abha **83** **C2** *18°14′N 42°30′E*
Abidjan **94** **D5** *5°19′N 4°3′W*
Abilene **110** **C4** *32°27′N 99°44′W*
Abitibi, Lake **109** **G4**
Aboa, Antarctic base **55** **Q3**
73°3′S 13°25′W
Abomey **100** **B5** *7°11′N 1°59′E*
Abongabong, mountain **70** **A3**
4°15′N 96°48′E
Abu Dhabi **66** **E3**
24°28′N 54°22′E
Abuja **100** **B5** *9°5′N 7°32′E*
Abu Kamal **83** **C4**
34°27′N 40°55′E
Abut Head **65** **C3**
43°7′S 170°16′E
Acapulco **110** **B2**
16°51′N 99°55′W
Accra **95** **D5** *5°33′N 0°13′W*
Acklins Island **111** **E3**
22°24′N 73°59′W
Aconcagua, Mount **119** **C3**
32°39′S 70°1′W
Adamawa Plateau **100** **C5**
Adaminaby **35** **F2**
36°0′S 148°46′E
Adamsons Peak **39** **D1**
43°21′S 146°49′E
Adana, Turkey **85** **H2**
37°0′N 35°19′E
Adapazari **85** **H3**
40°48′N 30°25′E
Ad Damman **83** **C3**
26°26′N 50°6′E
Addis Ababa **83** **C1**
9°2′N 38°42′E
Ad Diwaniyah **83** **C4**
31°59′N 44°55′E
Adelaide **43** **G3**
34°56′S 138°36′E
Adelaide River **51** **C8**
Adelaide River **62** **C1**
13°15′S 131°6′E
Adelie Land, Antarctic territory **55** **H2**
Aden, Gulf of **83** **C2**
Aden **83** **C2** *12°47′N 45°1′E*
Adi, island **62** **C3** *4°12′S 133°25′E*
Adigrat **83** **C2** *14°17′N 39°28′E*
Adirondack Mountains **109** **G4**
Adi Ugri **83** **B2** *14°53′N 38°49′E*
Adiyaman, Turkey **83** **B4**
37°46′N 38°17′E
Admiralty Islands **63** **F3**
Admiralty Gulf **47** **E6**
Adrar **90** **D2** *27°52′N 0°17′W*
Adriatic Sea **85** **F3**
Aegean Sea **85** **G2**
Aeolian Islands **91** **G4**
Afghanistan, republic **78** **B4**
Africa, continent **86** **E2**
Afyon **83** **B4** *38°45′N 30°33′E*
Agadez **98** **D3** *17°0′N 7°59′E*
Agadir **98** **B5** *30°26′N 9°37′W*
Agalega Islands **101** **G3**
Agartala **79** **E3** *23°50′N 91°17′E*
Agats **62** **D2** *5°35′S 138°5′E*
Agen **90** **E5** *44°12′N 0°38′E*
Aggie, Mount **31** **B4**
35°28′S 148°46′E
Aggie Gap **31** **B4**
35°28′S 148°46′E
Aginskoye **75** **F5** *51°6′N 114°31′E*
Agordat **83** **B2** *15°33′N 37°53′E*
Agra **79** **C3** *27°10′N 78°1′E*
Agri **80** **C3** *39°43′N 43°3′E*
Agrinio **91** **I4** *38°37′N 21°24′E*
Agua Prieta, Mexico **110** **B4**
31°19′N 109°34′W
Agua Prieta, United States of America **108** **D3**
31°19′N 109°34′W
Aguascalientes **110** **B3**
21°53′N 102°18′W
Agulhas, Cape **101** **D1**
34°48′S 20°0′E
Agulhas Negras, mountain **117** **E1** *22°20′S 44°44′W*
Ahaggar Mountains **97** **E7**
Ahar, Iran **83** **C4** *38°29′N 47°4′E*
Ahmedabad **79** **C3**
23°2′N 72°35′E
Ahmednagar **79** **C2**
19°7′N 74°45′E
Ahvaz **83** **C4** *31°17′N 48°43′E*
Aiken **111** **D4** *33°33′N 81°43′W*
Aileron **51** **D3** *22°33′S 133°20′E*
Ainslie, Mount **31** **E5**
35°16′S 149°9′E
Air and Tenere Natural Reserves **99** **E3**
Air Mountains **98** **D3**
Aisega **63** **F2** *5°42′S 148°22′E*
Aitape **62** **E3** *3°9′S 142°21′E*
Aitutaki, island **59** **J4**
Aix-en- Provence **91** **F5**
43°31′N 5°27′E
Aizawl **79** **E3** *23°43′N 92°43′E*
Ajaccio **91** **F5** *41°56′N 8°44′E*
Ajaju River **116** **B4**
Ajmer **79** **C3** *26°27′N 74°38′E*
Akhtubinsk **80** **C4**
48°17′N 46°10′E
Akimiski Island **107** **K3**
Akita **77** **E4** *39°43′N 140°5′E*
Akola **79** **C3** *20°43′N 77°1′E*
Akron **109** **F4** *41°4′N 81°31′W*
Aksu **74** **B4** *41°9′N 80°15′E*
Aksum **83** **B2** *14°8′N 38°43′E*
Akureyi **84** **C5** *65°40′N 18°6′W*
Alabama, state **110** **D4**
Alabama River **109** **F3**
Alagoinhas **117** **F2**
12°8′S 38°26′W
Alajuela **116** **A5** *10°1′N 84°14′W*
Alakol, lake **81** **G4**
Al Amarah **83** **C4** *31°50′N 47°9′E*
Alamogordo **110** **B4**
32°54′N 105°58′W
Aland, island **87** **F5**
Aland Islands **85** **F5**
Alappuzha **79** **C1** *9°30′N 76°22′E*
Al Aqabah **83** **B3** *29°32′N 35°5′E*
Alaska, state **106** **C4**
Alaska, Gulf of **106** **D3**
Alaska Peninsula **106** **C3**
Alaska Range **106** **C4**
Alayat Samail **83** **D3**
23°18′N 57°59′E
Al Ayn **83** **D3** *24°14′N 55°44′E*
Al Aziziyah **97** **F8**
32°31′N 13°01′E
Albacete **90** **D4** *39°0′N 1°52′W*
Albacutya, Lake **34** **C3**
Albania, republic **85** **G3**
Albany, Australia **47** **C2**
35°0′S 117°52′E
Albany, Georgia **109** **F3**
31°35′N 84°9′W
Albany, New York **109** **G4**
42°40′N 73°49′W
Albany, Oregon **108** **B4**
44°37′N 123°5′W
Albany River **109** **F5**
Albatross Bay **23** **B5**
12°38′S 141°44′E
Al Bayda **91** **I3** *32°46′N 21°37′E*
Albemarle Sound **109** **G3**
Alberga River **43** **D7**
Albert, Lake **101** **D5**
Alberta, province **108** **C5**
Albert Edward, Mount **63** **F2**
8°27′S 147°24′E
Albina, Point **100** **C3**
15°53′S 11°44′E
Albuquerque **108** **D3**
35°6′N 106°38′W
Albury **35** **E2** *36°4′S 146°55′E*
Aldabra Atoll **101** **F4**
Aldabra Island **101** **F4**
Aldama, Mexico **110** **C3**
22°55′N 98°4′W
Aldan **93** **M4** *58°36′N 125°23′E*
Aldan River **67** **I5**
Aldgate **43** **G3** *35°01′S 138°44′E*
Aldinga Beach **43** **G3**
35°17′S 138°27′E
Alejandro de Humboldt National Park **111** **E3**
Alekseyevka **91** **L7**
50°39′N 38°42′E
Alenquer **117** **D3** *1°56′S 54°47′W*
Aleppo, Syria **83** **B4**
36°14′N 37°10′E
Alert **107** **M6** *82°29′N 62°15′W*
Alesund **89** **H4** *62°33′N 6°23′E*
Aleutian Islands **106** **C3**
Alexander Archipelago **106** **E3**
Alexander Bay **101** **C2**
28°37′S 16°30′E
Alexander Island, Range **55** **O3**
Alexandra, Australia **35** **D2**
37°11′S 145°43′E
Alexandra, New Zealand **65** **C2**
45°15′S 169°23′E
Alexandria, Australia **51** **F5**
19°3′S 136°42′E
Alexandria, Egypt **83** **A4**
31°12′N 29°57′E
Alexandria, Louisiana **110** **C4**
31°19′N 92°27′W
Alexandria, Virginia **109** **G3**
38°49′N 77°6′W
Alexandrina, Lake **43** **G3**
Alexandroupoli **91** **J5**
40°51′N 25°52′E
Al Fallujah **83** **C4**
33°21′N 43°47′E
Al Fujayrah **83** **D3**
25°7′N 56°20′E
Algeria, republic **84** **E2**
Algha **92** **F3** *49°54′N 57°20′E*
Al Ghaydah **83** **D2**
16°14′N 52°10′E
Algiers **90** **E4** *36°46′N 3°3′E*
Al Haruj Al Aswad, plateau **91** **H2**
Al Hasakah **83** **C4**
36°29′N 40°45′E
Al Hillah **83** **C3** *23°29′N 46°45′E*
Al Hudaydah **83** **C2**
14°48′N 42°57′E
Al Hufuf **83** **C3** *25°21′N 49°35′E*
Ali Bayramli **83** **C4**
39°56′N 48°55′E
Alicante **84** **E2** *38°21′N 0°29′W*
Alice **110** **C3** *27°45′N 98°4′W*

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Alice Springs **51** **E3**
23°42′S 133°53′E
Ali Curung **51** **E4** *21°0′S 134°24′E*
Aligarh **79** **C3** *27°54′N 78°4′E*
Alipur Duar **79** **E3**
26°29′N 89°34′E
Ali Sabih **83** **C2** *11°9′N 42°43′E*
Aliwal North **101** **D1**
30°41′S 26°43′E
Al Jaghbub **91** **I2**
29°45′N 24°31′E
Al Jahra **83** **C3** *29°20′N 47°39′E*
Al Jawf **99** **F4** *24°12′N 23°17′E*
Al Jubayl **83** **D3** *27°0′N 49°39′E*
Al Karak **99** **G5** *31°11′N 35°42′E*
Al Khalil **91** **L3** *31°32′N 35°6′E*
Al Kharj **83** **C3** *24°9′N 47°19′E*
Al Khums **91** **G3** *32°40′N 14°16′E*
Al Kut **83** **C4** *32°29′N 45°50′E*
Al Ladhiqiyah **99** **G5**
35°32′N 35°47′E
Allahabad **79** **D3**
25°27′N 81°50′E
Allanmyo **79** **E2** *19°23′N 95°14′E*
Allende **110** **B3**
28°20′N 100°51′W
Allentown **109** **G4**
40°36′N 75°30′W
Alliance **109** **D4**
42°6′N 102°52′W
Al Marj **91** **I3** *32°30′N 20°50′E*
Almaty **74** **B4** *43°20′N 76°55′E*
Almenara **117** **E2**
16°10′S 40°42′W
Almeria **90** **D4** *36°50′N 2°26′W*
Almetyevsk **85** **J4**
54°54′N 52°19′E
Almirante **111** **D1** *9°18′N 82°24′W*
Almirante Brown, Antarctic base
55 **O3** *64°53′S 62°53′W*
Al Mubarraz **83** **C3**
25°26′N 49°34′E
Al Mukalla **83** **C2** *14°32′N 49°8′E*
Alofi **59** **I4** *19°4′S 169°53′W*
Alor, island **62** **A2**
Alor Setar **79** **E1** *6°7′N 100°22′E*
Alotau **23** **D5** *10°18′S 150°28′E*
Aloysius, Mount **51** **B2**
26°0′S 128°36′E
Alpena **109** **F4** *45°4′N 83°26′W*
Alpha **23** **C3** *23°39′S 146°38′E*
Alphonse Island **101** **G4**
Alpine **110** **B4** *30°22′N 103°40′W*
Alpine National Park **35** **E2**
Al-Qatif **83** **C3** *26°31′N 50°1′E*
Al Qunaytirah **91** **L3**
33°8′N 35°49′E
Al Quwayiyah **83** **C3**
24°4′N 45°17′E
Alroy Downs **51** **F5**
19°18′S 136°4′E
Altamira **117** **D3** *3°12′S 52°13′W*
Altata **108** **D2** *24°38′N 107°55′W*
Altay, China **75** **C4**
47°52′N 88°7′E
Altay, Mongolia **75** **D4**
46°24′N 95°51′E
Altay Mountains **75** **C4**
Altiplano, plateau **117** **C1**
Altoona **109** **G4**
40°31′N 78°24′W
Al Uqaylah **91** **H3** *30°15′N 19°12′E*
Alvorada **117** **E2** *12°28′S 49°5′W*
Al Wajh **83** **B3** *26°14′N 36°28′E*
Alxa Zuoqi **75** **E3**
38°50′N 105°40′E
Alyangula **51** **F8** *13°51′S 136°25′E*
Amadeus, Lake **51** **C2**
Amadjuak Lake **107** **L4**
Amahai **62** **B3** *3°20′S 128°56′E*
Amakusa Islands **77** **C2**
Amamapare **62** **D3**
4°52′S 136°48′E
Amanab **62** **E3** *3°35′S 141°13′E*
Amapa **117** **D4** *2°3′N 50°48′W*
Amarillo **109** **D3**
35°14′N 101°50′W
Amasya, Turkey **83** **B5**
40°39′N 35°50′E
Amazon Basin **116** **C4**
Amazon River **116** **B3**
Ambala **74** **B3** *30°19′N 76°49′E*
Ambanja **101** **F3** *13°41′S 48°27′E*
Ambarchik **93** **Q5**
69°39′N 162°20′E
Ambato **113** **D6** *1°16′S 78°37′W*
Ambatondrazaka **101** **F3**
17°50′S 48°25′E
Ambon **62** **B3** *3°43′S 128°12′E*
Ambre, Cape **101** **G3**
11°58′S 49°16′E
Ambriz **100** **C4** *7°51′S 13°8′E*
Ambunti **62** **E3** *4°13′S 142°49′E*
American Highland **57** **E3**
American Samoa **59** **I4**
Amery Ice Shelf **55** **D3**
Ames **109** **E4** *42°3′N 93°37′W*
Amherst **109** **H4**
45°49′N 64°13′W
Amiens **85** **E3** *49°54′N 2°18′E*
Amirante Islands **101** **G4**
Amman, Jordan **83** **B4**
31°57′N 35°56′E
Ammochostos **91** **K4**
35°8′N 33°57′E
Amnyemaqen, Mount **79** **F4**
34°48′N 99°28′E
Amol **83** **D4** *36°28′N 52°22′E*
Amos **109** **G4** *48°34′N 78°7′W*
Amravati **79** **C3** *20°57′N 77°46′E*
Amritsar **79** **C4** *31°39′N 74°52′E*
Amsterdam **85** **E4**
52°21′N 4°55′E
Amu Darya River **83** **E4**
Amundsen Bay **57** **C3**
Amundsen Gulf **107** **F5**
Amundsen-Scott South Pole,
Antarctic base **55** **B4**
90°0′S 00°00′E
Amundsen Sea **55** **M3**
Amuntai **71** **C2** *2°25′S 115°14′E*
Amu River **69** **F4**
Amur River **77** **D6**
Anadyr, Gulf of **93** **S5**
Anadyr, Russia **93** **R5**
64°44′N 177°28′E
Anadyr River **93** **R5**
Anami Island **77** **C1**
28°17′N 129°23′E
Anapolis **117** **E2** *16°19′S 48°58′W*
Anatahan, island **58** **D7**
Anbyon **77** **B4** *39°2′N 127°31′E*
Anchorage **106** **D4**
61°13′N 149°54′W
Ancona **91** **G5** *43°36′N 13°30′E*
Anda **77** **B6** *46°24′N 125°19′E*
Andado **51** **E2** *25°26′S 135°17′E*
Andaman and Nicobar, state
73 **A2**
Andaman Islands **79** **E2**
Andaman Sea **79** **E2**
Andamooka **13** **D2**
30°26′S 137°10′E
Anderson **111** **D4**
34°30′N 82°39′W
Anderson Bay **39** **E4**
40°57′S 147°26′E
Andes, range **111** **E1**
Andhra Pradesh, state **79** **C2**
15°17′N 78°41′E
Andijon, Uzbekistan **74** **B4**
40°47′N 72°20′E
Andkhvoy, Afghanistan **78** **B4**
36°56′N 65°6′E
Andkhvoy, Turkmenistan **83** **E4**
36°56′N 65°6′E
Andong, South Korea **77** **C3**
36°34′N 128°44′E
Andorra, kingdom **84** **E3**
Andorra la Vella, Spain **84** **E3**
42°30′N 1°31′E
Andradina, Brazil **117** **D1**
20°55′S 51°23′W
Androka **101** **F2** *25°1′S 44°4′E*
Andros, island **111** **E3**
Anembo, Mount **31** **F1**
35°52′S 149°29′E
Anembo **31** **F2** *35°48′S 149°26′E*
Angangxi, China **77** **B6**
47°10′N 123°48′E
Angara River **93** **J4**
Angarsk, Russia **75** **E5**
52°34′N 103°55′E
Angaston **43** **G3** *34°30′S 139°3′E*
Angeles, Philippines **71** **D4**
15°9′N 120°33′E
Angel Falls, waterfall **111** **F1**
5°41′N 62°4′W
Angemuk, mountain **62** **D3**
3°32′S 138°37′E
Angers, France **84** **E3**
47°29′N 0°32′W
Anglesea **35** **D1** *38°24′S 144°11′E*
Angoche **101** **F3** *16°14′S 39°55′E*
Angol, Chile **119** **B3**
37°47′S 72°43′W
Angola, republic **101** **C3**
Angoram **63** **E3** *4°4′S 144°4′E*
Angostura Reservoir **110** **C2**
Ang Thong **73** **C4**
Anguilla **111** **F2**
Angurugu **51** **F7**
13°59′S 136°28′E
Anhui, state **75** **F3**
31°5′N 116°51′E
Aniva, Cape **77** **F5**
46°5′N 143°26′E
Aniva Bay **77** **F6**
Ankang **75** **E3** *32°41′N 109°1′E*
Ankara **85** **H2** *39°56′N 32°52′E*
Annaba **91** **F4** *36°55′N 7°46′E*
An Nabk **80** **B3** *31°20′N 37°20′E*
An Nafud Desert **83** **C3**
An Najaf **83** **C4** *32°0′N 44°20′E*
Annapolis **109** **G3**
38°59′N 76°30′W
An Nasiriyah **83** **C4**
31°3′N 46°16′E
Annecy **91** **F6** *45°54′N 6°7′E*
Anqing **75** **F3** *30°30′N 117°3′E*
Ansan **77** **B3** *37°21′N 126°52′E*
Anshan **75** **G4** *41°7′N 122°56′E*
Anshun **79** **F3** *26°15′N 105°56′E*
Anson Bay **62** **B1**
Anson Bay **51** **B8** *13°21′S 130°4′E*
Antalaha **101** **G3** *14°53′S 50°17′E*
Antalya, Gulf of **83** **B4**
Antalya, Turkey **85** **G2**
36°54′N 30°42′E
Antananarivo, Madagascar **101**
F3 *18°55′S 47°31′E*
Antarctic Peninsula **57** **O3**
Antarctica, Antarctic territory
55 **O2**
Anthony, Lake **43** **D6**
Anthony Lagoon **51** **E6**
17°59′S 135°32′E
Anti Atlas, range **90** **C3**
Anticosti Island **107** **L2**
Antigua, island **111** **F2**
17°2′N 61°47′W
Antigua and Barbuda,
independent state **111** **G2**
Antofagasta **119** **B4**
23°39′S 70°24′W
Antofalla, Mount **115** **E4**
25°33′S 67°52′W
Antongil Bay **101** **G3**
Antrim Plateau **47** **E5**
Antsirabe **101** **F3** *19°51′S 47°2′E*
Antsiranana **101** **G3**
12°17′S 49°19′E
Antsohihy **101** **F3**
14°52′S 47°59′E
Antwerp **85** **E4** *51°13′N 4°25′E*
Anuradhapura **79** **D1**
8°21′N 80°23′E
Anxi **75** **D4** *40°30′N 95°48′E*
Anxious Bay **43** **E4**
33°20′S 134°39′E
Anyang **75** **F3** *36°5′N 114°21′E*
Aomori **77** **F4** *40°50′N 140°43′E*
Apalachee Bay **109** **F2**

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Apalachicola **111** **D3**
29°44′N 84°0′W
Apatity **89** **M5** *67°34′N 33°24′E*
Apatzingan **110** **B2**
19°5′N 102°21′W
Apennines, range **87** **F3**
Apia **59** **H4** *13°50′S 171°44′W*
Apo, Mount **71** **D3**
6°50′N 125°17′E
Apollo Bay **34** **C1**
38°46′S 143°40′E
Apolo, Bolivia **117** **C2**
14°43′S 68°25′W
Appalachian Mountains **109** **F3**
Appleton **109** **F4**
44°16′N 88°24′W
Apure River **111** **E1**
Aqadyr **92** **H3** *48°16′N 72°52′E*
Aqsay **92** **F4** *51°10′N 53°2′E*
Aqtau **92** **F3** *43°37′N 51°14′E*
Aqtobe **81** **D5** *50°17′N 57°10′E*
Aquidauana, Brazil **117** **D1**
20°28′S 55°47′W
Arabian Peninsula **83** **C3**
Arabian Sea **78** **B3**
Aracaju **117** **F2** *10°54′S 37°7′W*
Aracati **117** **F3** *4°34′S 37°46′W*
Aracatuba, Brazil **117** **E1**
21°13′S 50°27′W
Arad **91** **I6** *46°10′N 21°19′E*
Arafura Sea **51** **E9**
Araguaia River **117** **D2**
Araguaina **117** **E3** *7°11′S 48°13′W*
Arak **83** **D4** *34°5′N 49°42′E*
Arakan Range **79** **E2**
Arakan Yoma, tundra **73** **A5**
Aral **92** **G3** *46°48′N 61°40′E*
Aral Sea **81** **D4**
Aranda **62** **C3** *2°10′S 133°2′E*
Aranyaprathet **73** **C3**
Araouane **98** **C3** *18°54′N 3°32′W*
Arapiraca **117** **F3**
9°45′S 36°40′W
Arar **83** **C4** *30°59′N 41°1′E*
Ararat **34** **C2** *37°17′S 142°56′E*
Ararat, Mount **87** **I2**
39°42′N 44°18′E
Aras River **83** **C4**
Arauca **111** **E1** *7°5′N 70°46′W*
Aravalli Range **79** **C3**
Arawa **63** **H2** *6°13′S 155°34′E*
Arcata **108** **B4** *40°53′N 124°5′W*
Archangel **85** **I5**
64°34′N 40°33′E
Archipelago of the Recherche **47** **D2**
Arckaringa, Mount **43** **E7**
27°54′S 134°49′E
Arctic Bay **107** **J5**
73°2′N 85°10′W
Arctic Ocean **107** **H6**
Ardabil **83** **C4** *38°15′N 48°18′E*
Ardlethan **35** **E3**
34°21′S 146°54′E
Ardmore **110** **C4** *34°11′N 97°8′W*
Arecibo **111** **F2** *18°26′N 66°44′W*
Arena, Point **106** **F1**
38°57′N 123°44′W
Arequipa **116** **B2** *16°25′S 71°32′W*
Areyonga **13** **D3** *24°4′S 132°16′E*
Arezzo **91** **G5** *43°28′N 11°52′E*
Arfak, Mount **62** **C3**
1°17′S 134°3′E
Argentina, republic **117** **C1**
Argentine Antarctica, Antarctic territory **55** **P3**
Argentino, Lake **119** **B1**
Argyle, Lake **51** **B6**
Arica, Chile **117** **C2**
18°30′S 70°17′W
Arizona, state **108** **A3**
33°10′N 110°50′W
Arkansas, state **108** **E3**
33°52′N 92°25′W
Arkansas River **109** **D3**
Arkticheskiy, Cape **93** **K7**
81°16′N 95°47′E
Armavir **85** **I3** *45°0′N 41°8′E*
Armenia, Colombia **116** **B4**
4°32′N 75°41′W
Armenia, republic **85** **I3**
Armidale **27** **G4**
30°30′S 151°40′E
Arnhem, Cape **15** **D4**
12°20′S 136°57′E
Arnhem Land **51** **E8**
Arqalyq **92** **G3** *50°15′N 66°54′E*
Ar Ramadi **83** **C4**
33°25′N 43°18′E
Ar Raqqah **83** **B4** *35°56′N 39°1′E*
Arras **89** **G2** *50°17′N 2°47′E*
Ar Rutbah, Iraq **83** **C4**
33°2′N 40°17′E
Arsenyev, Russia **77** **D5**
44°10′N 133°17′E
Artemisa, Cuba **111** **D3**
22°49′N 82°46′W
Arthur River **39** **C3**
Arthurs Lake **39** **D3**
Arthur's Pass **65** **E3**
42°57′S 171°34′E
Artigas Base, Antarctic base **55** **P2** *62°11′S 58°52′W*
Artvin **80** **C4** *41°11′N 41°49′E*
Arua **101** **E5** *3°1′N 30°54′E*
Aruba **111** **E2** *12°57′N 70°49′W*
Aru Islands **62** **C2**
Arunachal Pradesh, state **79** **E3**
28°10′N 94°14′E
Arusha **101** **E4** *3°22′S 36°40′E*
Arvayheer **75** **E4**
46°15′N 102°46′E
Arviat **107** **I4** *61°7′N 94°4′W*
Arxan **75** **F4** *47°11′N 119°58′E*
Arzamas **92** **E4** *55°24′N 43°48′E*
Asahi, Mount **77** **F5**
43°39′N 142°51′E
Asahikawa **77** **F5**
43°45′N 142°23′E
Asan Bay **77** **B3**
Asaralta, mountain **75** **E4**
48°30′N 107°23′E
Ascension **110** **B4**
31°6′N 107°59′W
Ashburton **65** **E3**
43°54′S 171°44′E
Ashburton River **47** **C4**
Ashford **27** **G5** *29°19′S 151°6′E*
Ashgabat **83** **D4**
37°57′N 58°23′E
Ashizuri, Cape **77** **D2**
32°44′N 133°0′E
Ashmore Reef **47** **D6**
Ash Shatrah **80** **C3**
31°25′N 46°11′E
Ash Shihr **83** **D2** *14°46′N 49°37′E*
Asia, continent **87** **K4**
Asir Mountains **83** **C2**
Asmara **83** **B2** *15°20′N 38°56′E*
Asosa **83** **B2** *10°4′N 34°32′E*
Assab **83** **C2** *13°1′N 42°44′E*
As Salt **91** **L3** *32°2′N 35°44′E*
Assam, state **79** **E3**
As Samawah **83** **C4**
31°19′N 45°17′E
As Sidr **99** **E5** *30°40′N 18°16′E*
As Sulaymaniyah **83** **C4**
35°34′N 45°26′E
As Sulayyil **83** **C3**
20°28′N 45°34′E
As Suwayda **83** **B4**
32°42′N 36°34′E
Astana **67** **F5** *51°11′N 71°26′E*
Asti **91** **F5** *44°56′N 8°13′E*
Astoria **108** **B4** *46°11′N 123°50′W*
Astrakhan **81** **C4** *46°21′N 48°3′E*
Astrebla Downs National Park **51** **H2**
Astrolabe Bay **63** **F2**
Asuka, Antarctic base **55** **B3**
71°32′S 24°8′E
Asuncion **119** **D4**
25°18′S 57°39′W
Aswan **83** **B3** *24°5′N 32°54′E*
Aswan High Dam **83** **B3**
Asyut **83** **B3** *27°11′N 31°11′E*
Atacama Desert **119** **B4**
Atamyrat **78** **B4** *37°49′N 65°12′E*
Atar **98** **B4** *20°31′N 13°3′W*
Atasu **92** **H3** *48°41′N 71°39′E*
Atbara **83** **B2** *17°43′N 33°59′E*
Atbara River **83** **B2**
Atbasar **81** **E5** *51°49′N 68°21′E*
Athabasca, Lake **107** **H3**
Athabasca River **106** **G3**
Athens, Greece **85** **G2**
37°59′N 23°44′E
Athens, United States of America **111** **D4**
33°58′N 83°23′W
Atherton **23** **C4** *17°16′S 145°29′E*
Ati **99** **E3** *13°13′N 18°20′E*
Atikokan **107** **I2** *48°45′N 91°37′W*
Atlanta **111** **D4** *33°50′N 84°24′W*
Atlantic City **109** **G3**
39°22′N 74°25′W
Atlantic Forest South-East Reserves **117** **E1**
Atlantic Ocean **111** **F3**
Atlas Mountains **87** **E2**
Atlas Tellien, range **90** **D3**
Atrek River **83** **D4**
At Taif **83** **C3** *21°16′N 40°23′E*
Attapu **73** **D4** *14°48′N 106°50′E*
Attawapiskat **109** **F5**
52°55′N 82°26′W
Atyrau **92** **F3** *47°7′N 51°55′E*
Aua, island **62** **E3** *1°34′S 143°4′E*
Auburn **111** **D4** *32°37′N 85°29′W*
Auckland **65** **F6** *36°51′S 174°46′E*
Auckland Island **55** **I2**
Augathella **23** **C2**
25°48′S 146°35′E
Augsburg **91** **G6** *48°21′N 10°54′E*
Augusta, Australia **47** **B2**
34°19′S 115°10′E
Augusta, Georgia **111** **D4**
33°28′N 81°59′W
Augusta, Maine **109** **H4**
44°19′N 69°47′W
Augustus Island **47** **D5**
Auki **63** **I2** *8°46′S 160°42′E*
Auld, Lake **47** **D4**
Aurangabad, Bihar **79** **D3**
24°46′N 84°23′E
Aurangabad, Maharashtra **79** **C2** *19°54′N 75°19′E*
Aurora, Colorado **109** **D3**
39°42′N 104°49′W
Aurora, Illinois **109** **F4**
41°46′N 88°18′W
Aurukun **23** **B5** *13°21′S 141°44′E*
Austin, Lake **47** **C3**
Austin **110** **C4** *30°16′N 97°45′W*
Austral Downs **51** **F4**
20°30′S 137°46′E
Australia, commonwealth **13** **D3**
Australian Antarctic Territory **55** **H2**
Australian Capital Territory **31** **C3**
Australian Institute of Sport **31** **D5** *35°15′S 149°7′E*
Australian National University **31** **D5** *35°17′S 149°7′E*
Australian War Museum **31** **E5**
35°17′S 149°9′E
Austral Islands **59** **K3**
Austria, republic **85** **F3**
Auxerre **91** **E6** *47°48′N 3°34′E*
Auzangate, mountain **116** **B2**
13°48′S 71°14′W
Avarua **59** **I3** *21°13′S 159°47′W*
Avenel **35** **D2** *36°54′S 145°14′E*
Avieme **62** **E3** *4°53′S 143°35′E*
Avoca **34** **C2** *37°5′S 143°28′E*
Avoca River **34** **C2**
Avon Downs **51** **F4**
20°2′S 137°29′E
Aweil **101** **D5** *8°46′N 27°24′E*
Awio **63** **G2** *6°10′S 150°5′E*
Awjilah **91** **I2** *29°6′N 21°17′E*
Axel Heiberg Island **107** **I5**
Ayacucho **116** **B2** *13°11′S 74°13′W*

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Ayakoz **74** **B4** *47°58′N 80°26′E*
Aydar Kuli **81** **E4**
Aydin **83** **A4** *37°51′N 27°51′E*
Ayon Island **93** **Q6**
Ayr **23** **C4** *19°34′s 147°24′E*
Ayutthaya **70** **A4**
14°22′N 100°34′E
Azare **100** **B6** *11°41′N 10°11′E*
Azerbaijan, republic **85** **I3**
Azov, Sea of **91** **L6**
Azov Upland **87** **H3**
Azul **119** **C3** *36°47′s 59°52′W*
Az Zahran **83** **C3** *26°17′N 50°9′E*
Az Zawiyah **99** **E5**
32°46′N 12°43′E

B

Ba **61** **B3** *17°32′s 177°42′E*
Babanusa **101** **D6**
11°20′N 27°48′E
Babar, island **62** **B2**
7°57′s 129°39′E
Babelthuap, island **58** **C6**
Babinda **23** **C4** *17°21′s 145°55′E*
Babruysk **89** **L2** *53°8′N 29°12′E*
Babuyan Islands **71** **D5**
Bacabal **117** **E3** *4°14′s 44°48′W*
Bacan, island **62** **B3**
0°28′s 127°32′E
Bacau **91** **J6** *46°35′N 26°55′E*
Bacchus Marsh **35** **D2**
37°41′s 144°26′E
Bac Giang **73** **D5**
Bac Kan **73** **D6**
Bac Lieu **70** **B3** *9°17′N 105°43′E*
Bacolod **71** **D4** *10°38′N 122°59′E*
Badajoz **90** **C4** *38°53′N 6°58′W*
Badu Island **62** **E1** *10°7′s 142°5′E*
Baekdu Mountain **77** **B5**
42°0′N 128°3′E
Bafata **98** **B3** *12°10′N 14°40′W*
Baffin Bay **107** **L5**
Baffin Island **107** **K4**
Bafia **100** **C5** *4°45′N 11°14′E*
Bafoulabe **98** **B3**
13°48′N 10°49′W
Bafoussam **100** **C5**
5°29′N 10°25′E
Bafra **83** **B5** *41°34′N 35°54′E*
Bagdad **39** **E2** *42°38′s 147°13′E*
Bage **119** **D3** *31°19′s 54°6′W*
Baghdad **83** **C4** *33°20′N 44°24′E*
Baghlan **78** **B4** *36°8′N 68°42′E*
Bago **79** **E2** *17°19′N 96°31′E*
Baguio City **71** **C4**
16°26′N 120°34′E
Bagzane, Mount **98** **D3**
18°40′N 8°40′E
Bahamas **111** **E3**
Bahawalpur **78** **C3**
29°23′N 71°40′E
Bahia Blanca **119** **C3**
38°44′s 62°16′W
Bahir Dar **83** **B2** *11°36′N 37°23′E*
Bahraich, India **79** **D3**
27°37′N 81°40′E
Bahraich, Nepal **74** **C2**
27°37′N 81°40′E
Bahrain, kingdom **83** **D3**
Baia Mare **91** **I6** *47°40′N 23°35′E*
Baicheng **77** **A5**
45°37′N 122°49′E
Baie-Comeau **107** **L2**
49°13′N 68°9′W
Baikal, Lake **75** **E5**
Baiquan **77** **B6** *47°36′N 126°5′E*
Bairin Zuoqi **75** **F4**
43°59′N 119°11′E
Bairnsdale **35** **E2**
37°49′s 147°37′E
Bairnuru **63** **F2** *7°32′s 144°48′E*
Baishan **77** **B4** *41°54′N 126°26′E*
Baja, Point **108** **C2**
29°57′N 115°49′W
Baja California, island **105** **H4**
Baker, Mount **108** **B4**
48°48′N 121°49′W
Baker Lake **107** **I4**
Baker Lake **107** **I4**
64°19′N 96°1′W
Bakersfield **108** **C3**
35°22′N 119°1′W
Baku **83** **D5** *40°24′N 49°52′E*
Balaklava **43** **G3** *34°9′s 138°25′E*
Balakovo **85** **I4** *52°2′N 47°48′E*
Balashov **91** **M7** *51°33′N 43°10′E*
Balboa **111** **E1** *8°57′N 79°34′W*
Balclutha **65** **D1** *46°15′s 169°45′E*
Bald Hill **23** **B3** *20°17′s 144°6′E*
Balearic Islands **84** **E3**
Balearic Sea **86** **E3**
Baleia Point, cape **117** **F2**
17°43′s 39°9′W
Baleshwar, India **79** **D3**
21°23′N 86°53′E
Balevuto **61** **B3** *17°39′s 177°44′E*
Bali, island **14** **B5**
Balikesir **83** **A4** *39°39′N 27°53′E*
Balikpapan **71** **C2** *1°15′s 116°50′E*
Balimo **62** **E2** *8°0′s 142°54′E*
Balingian **71** **C3** *2°56′N 112°32′E*
Balkanabat **83** **D4**
39°31′N 54°22′E
Balkan Mountains **87** **G3**
Balkan Peninsula **87** **G3**
Balkh **78** **B4** *36°45′N 66°54′E*
Balkhash, Lake **81** **F4**
Ballarat **34** **C2** *37°34′s 143°52′E*
Ballard, Lake **47** **D3**
Ballina **27** **H5** *28°52′s 153°34′E*
Balmoral **27** **G3** *33°3′s 151°35′E*
Balonne River **23** **C2**
Balqash **74** **B4** *46°51′N 74°57′E*
Balranald **34** **C3**
34°38′s 143°34′E
Balsas **117** **E3** *7°31′s 46°3′W*
Balsas River **110** **B2**
Balti **89** **L1** *47°46′N 27°54′E*
Baltic Plains **87** **G4**
Baltic Sea **85** **F4**
Baltimore **109** **G3**
39°18′N 76°37′W
Balyqshy **81** **D4** *47°4′N 51°52′E*
Bam **81** **D2** *29°6′N 58°22′E*
Bamaga **23** **B5** *10°54′s 142°23′E*
Bamako **98** **C3** *12°39′N 8°0′W*
Bambari **101** **D5** *5°46′N 20°40′E*
Bamenda **100** **B5** *5°58′N 10°9′E*
Bamian **78** **B4** *34°49′N 67°31′E*
Banaba, island **59** **G5**
Banc d'Arguin National Park
98 **B3**
Banda, island **62** **B3**
4°33′s 129°57′E
Banda Aceh **79** **E1**
5°33′N 95°19′E
Bandarbeyla **83** **D1**
9°29′N 50°49′E
Bandar-e-Abbas **83** **D3**
27°12′N 56°16′E
Bandar-e Bushehr **83** **D3**
28°55′N 50°50′E
Bandar Lampung **67** **H2**
5°26′s 105°16′E
Bandar Seri Begawan **71** **C3**
4°53′N 114°56′E
Banda Sea **62** **B2**
Bandjarmasin **71** **C2**
3°20′s 114°35′E
Bandundu **101** **C4** *3°19′s 17°23′E*
Bandung **67** **H2** *6°57′s 107°34′E*
Banemo **62** **B4** *0°21′N 128°36′E*
Banes **109** **G2** *20°58′N 75°43′W*
Banff **108** **C5** *51°11′N 115°34′W*
Bangassou **101** **D5**
4°44′N 22°49′E
Bangeta, Mount **63** **F2**
6°20′s 147°5′E
Bangka, island **70** **B2**
Bangkal **71** **C2** *2°37′s 112°24′E*
Bangkok **79** **F2** *13°45′N 100°31′E*
Bangladesh, republic **79** **E3**
Bangui **101** **C5** *4°22′N 18°33′E*
Bangweulu, Lake **101** **E3**
Ban Houayxay **73** **C5**
Baniara **63** **F2** *9°43′s 149°52′E*
Bani Walid **91** **G3**
31°46′N 13°59′E
Banjul **98** **B3** *13°27′N 16°36′W*
Banks Island **107** **F5**
Banks Peninsula **65** **E3**
Banks Strait **39** **F4**
40°40′s 148°07′E
Bannockburn **35** **D1**
38°3′s 144°10′E
Bannu **81** **F3** *32°59′N 70°36′E*
Baoding **75** **F3** *38°52′N 115°29′E*
Baoji **79** **F4** *34°23′N 107°9′E*
Baoshan **79** **F3** *25°7′N 99°9′E*
Baotou **75** **E4** *40°39′N 109°49′E*
Baoule River **98** **C3**
Baqubah **83** **C4** *33°45′N 44°39′E*
Baradine **27** **F4** *30°57′s 149°4′E*
Barahona **111** **E2** *18°12′N 71°6′W*
Baranavichy **89** **L2** *53°8′N 26°1′E*
Barbados, republic **103** **M2**
Barbuda, island **111** **F2**
17°37′N 61°47′W
Barcaldine **23** **B3**
23°33′s 145°17′E
Barcelona, Spain **84** **E3**
41°23′N 2°11′E
Barcelona, Venezuela **111** **F1**
10°8′N 64°43′W
Barcelos **117** **C3** *0°58′s 62°55′W*
Barddhaman **74** **C2**
23°15′N 87°52′E
Bareilly **79** **D3** *28°21′N 79°25′E*
Barellan **35** **E3** *34°17′s 146°34′E*
Barents Sea **85** **H5**
Barham **27** **C2** *35°37′s 144°8′E*
Bari **85** **F3** *41°7′N 16°52′E*
Barinas **111** **F1** *8°36′N 70°15′W*
Barisal **79** **E3** *22°42′N 90°22′E*
Barisan Mountains **70** **B2**
Barito River **71** **C2**
Barkly Homestead Roadhouse
51 **F5** *19°43′s 135°50′E*
Barkly Tableland **51** **G4**
Barlee, Lake **47** **C3**
Barlee Range **47** **C4**
Barlett **109** **F3** *35°13′N 89°50′W*
Barletta **91** **H5** *41°19′N 16°16′E*
Barloweerie, Mount **47** **C3**
27°12′s 116°18′E
Barmah **35** **D3** *36°1′s 144°58′E*
Barmedman **35** **E3**
34°9′s 147°23′E
Barmera **34** **B3** *34°15′s 140°28′E*
Barnaul **67** **G5** *53°21′N 83°45′E*
Barney, Mount **23** **D2**
28°17′s 152°41′E
Barooga **35** **D3** *35°54′s 145°42′E*
Barotu **61** **C3** *17°29′s 178°14′E*
Barquisimeto **111** **F1**
10°3′N 69°18′W
Barraba **27** **G4** *30°23′s 150°37′E*
Barra do Garcas **117** **D2**
15°53′s 52°16′W
Barrancabermeja **111** **E1**
7°5′N 73°51′W
Barranquilla **111** **E2**
10°58′N 74°48′W
Barras **117** **E3** *4°15′s 42°18′W*
Barreiras **117** **E2** *12°8′s 45°0′W*
Barren Grounds **107** **I4**
Barretos **117** **E1** *20°33′s 48°35′W*
Barrie **107** **J2** *44°23′N 79°42′W*
Barrier Range **26** **B4**
Barrington Tops National Park
27 **G3**
Barrow, Mount **39** **E3**
41°23′s 147°25′E
Barrow, Point **106** **C5**
71°22′N 156°37′W
Barrow **106** **C5** *71°17′N 156°47′W*
Barrow Creek **51** **D4**
21°30′s 133°55′E
Barrow Island **47** **B4**
Barschtsch, Cape **63** **F3**
4°51′s 145°44′E
Bartica **117** **D4** *6°25′N 58°38′W*
Bartle Frere, Mount **15** **E4**
17°23′s 145°42′E

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Baru, Mount **111** **D1** *8° 48′N 82° 33′W*
Barunga (Bamyili) **62** **C1** *14° 31′S 132° 52′E*
Barwon River **27** **E4**
Barysaw **89** **L2** *54° 14′N 28° 30′E*
Basankusu **101** **D5** *1° 14′N 19° 48′E*
Basel **91** **F6** *47° 35′N 7° 35′E*
Base Presidente Eduardo Frei Montalva and Villa Las Estrellas, Antarctic base **55** **P2** *62° 12′S 58° 59′W*
Bashakerd Mountains **83** **D3**
Bashir Channel **71** **D5**
Baskerville, Cape **47** **D5** *17° 8′S 122° 15′E*
Basra **83** **C4** *30° 31′N 47° 49′E*
Basse-terre **111** **F2** *16° 14′N 61° 26′W*
Basseterre **111** **F2** *17° 18′N 62° 43′W*
Bass Strait **13** **E2**
Bastia **91** **F5** *42° 42′N 9° 27′E*
Bata **100** **C5** *1° 52′N 9° 46′E*
Batakam **71** **C2** *4° 5′S 114° 37′E*
Batangas **71** **D4** *13° 47′N 121° 1′E*
Batavia-Bivak **62** **D3** *2° 44′S 138° 23′E*
Batchelor **51** **C8** *13° 3′S 131° 2′E*
Batemans Bay **27** **G2** *35° 44′S 150° 14′E*
Bath **88** **F2** *51° 23′N 2° 21′W*
Bathurst, Australia **27** **F3** *33° 25′S 149° 35′E*
Bathurst, Canada **109** **H4** *47° 36′N 65° 39′W*
Bathurst Island, Australia **62** **B1**
Bathurst Island, Canada **107** **H6**
Bati, Ethiopia **83** **C2** *11° 11′N 40° 1′E*
Batiki, island **61** **D3** *17° 47′S 179° 10′E*
Batiri **61** **D4** *16° 37′S 179° 2′E*
Batlow **35** **F3** *35° 31′S 148° 9′E*
Batman **83** **C4** *37° 53′N 41° 8′E*
Batna **91** **F4** *35° 34′N 6° 10′E*
Baton Rouge **110** **C4** *30° 27′N 91° 8′W*
Batouri **100** **C5** *4° 26′N 14° 22′E*
Battambang **79** **F2** *13° 6′N 103° 12′E*
Batticaloa **79** **D1** *7° 43′N 81° 42′E*
Batu, Mount **101** **F5** *6° 40′N 39° 25′E*
Batu Islands **70** **A2**
Batumi **83** **C5** *41° 36′N 41° 38′E*
Batu Pahat **70** **B3** *1° 51′N 102° 56′E*
Baubau **71** **D2** *5° 28′S 122° 37′E*
Baukau **62** **B2** *8° 27′S 126° 25′E*
Bauld, Cape **107** **M3** *51° 34′N 55° 26′W*
Bauru **117** **E1** *22° 20′S 49° 5′W*
Bavaro **111** **F2** *18° 43′N 68° 27′W*
Baw Baw, Mount **35** **E2** *37° 50′S 146° 16′E*
Baw Baw National Park **35** **E2**
Bawe **62** **C3** *3° 0′S 134° 39′E*
Bayamo **111** **E3** *20° 23′N 76° 39′W*
Bayan Har Mountains **79** **E4**
Bayan Obo **75** **E4** *41° 46′N 109° 58′E*
Bay City **110** **C3** *28° 59′N 95° 58′W*
Baydhabo **101** **F5** *3° 7′N 43° 39′E*
Bayghanin **81** **D4** *48° 42′N 55° 52′E*
Baykal, Lake **67** **H5**
Baykonur **81** **E4** *45° 41′N 63° 14′E*
Bay of Islands **65** **F7** *35° 11′S 174° 12′E*
Bay of Plenty **65** **G5**
Baytown **110** **C3** *29° 45′N 94° 58′W*
Beachport **43** **G2** *37° 29′S 140° 1′E*
Beaconsfield **39** **D3** *41° 12′S 146° 49′E*
Beagle Bay **47** **D5** *16° 55′S 122° 32′E*
Bear Islands, island group **93** **P6**
Bear Lake **108** **C4**
Beatrice, Cape **51** **F7** *14° 18′S 136° 57′E*
Beaudesert **27** **H5** *27° 59′S 153° 0′E*
Beaufort, Australia **34** **C2** *37° 26′S 143° 23′E*
Beaufort, United States of America **111** **D4** *32° 26′N 80° 41′W*
Beaufort Sea **106** **D5**
Beaufort West **101** **D1** *32° 21′S 22° 34′E*
Beaumont **110** **C4** *30° 5′N 94° 6′W*
Beauty Point **39** **D3** *41° 9′S 146° 49′E*
Bechar **90** **D3** *31° 37′N 2° 14′W*
Beckley **109** **F3** *37° 47′N 81° 11′W*
Bedourie **51** **G2** *24° 22′S 139° 28′E*
Beeac **34** **C1** *38° 12′S 143° 38′E*
Beechworth **35** **E2** *36° 21′S 146° 41′E*
Beer Sheva **91** **K3** *31° 15′N 34° 50′E*
Beeville **110** **C3** *28° 24′N 97° 45′W*
Bega **35** **F2** *36° 40′S 149° 51′E*
Behbehan **83** **D4** *30° 35′N 50° 16′E*
Bei'an **77** **B6** *48° 14′N 126° 29′E*
Beihai **71** **B5** *21° 29′N 109° 6′E*
Beijing **75** **F4** *39° 56′N 116° 23′E*
Beira **101** **E3** *19° 49′S 34° 52′E*
Beirut **83** **B4** *33° 52′N 35° 30′E*
Beja **91** **F4** *36° 44′N 9° 11′E*
Bejaia **91** **F4** *36° 46′N 5° 4′E*
Bekasi **70** **B2** *6° 13′S 106° 58′E*
Bekiy **101** **F2** *24° 13′S 45° 19′E*
Belaga **71** **C3** *2° 42′N 113° 46′E*
Belair National Park **43** **G3**
Belarus, republic **85** **G4**
Belaya Kalitva **80** **C4** *48° 11′N 40° 47′E*
Belcher Islands **107** **J3**
Belconnen **31** **D5** *35° 14′S 149° 4′E*
Beledweyne **101** **F5** *4° 44′N 45° 12′E*
Belem **117** **E3** *1° 27′S 48° 29′W*
Belfast **84** **D4** *54° 36′N 5° 58′W*
Belgaum **79** **C2** *15° 52′N 74° 30′E*
Belgium, kingdom **85** **E4**
Belgorod **85** **H4** *50° 38′N 36° 36′E*
Belgrade **85** **G3** *44° 49′N 20° 28′E*
Belgrano II, Antarctic base **55** **Q3** *77° 52′S 34° 37′W*
Belitung, island **70** **B2**
Belize, independent state **110** **D2**
Belize Barrier Reef Reserve System **110** **D2**
Belize City **110** **D2** *17° 30′N 88° 11′W*
Belkina, Cape **77** **E5** *45° 50′N 137° 38′E*
Bella Bella **106** **F3** *52° 9′N 128° 7′W*
Bellary **79** **C2** *15° 9′N 76° 55′E*
Bellbridge **35** **E2** *36° 6′S 147° 4′E*
Belle Isle, Strait of **107** **M3**
Bellenden Ker, mountain **15** **E4** *17° 16′S 145° 50′E*
Bellenden Ker **23** **C4** *17° 16′S 145° 55′E*
Belleville **109** **G4** *44° 10′N 77° 23′W*
Bellingen **27** **H4** *30° 27′S 152° 54′E*
Bellingham **108** **B4** *48° 46′N 122° 29′W*
Bellingshausen, Antarctic base **55** **P2** *62° 12′S 58° 58′W*
Bellingshausen Sea **55** **N3**
Belmopan **110** **D2** *17° 15′N 88° 46′W*
Belogorsk **75** **G5** *50° 55′N 128° 28′E*
Belo Horizonte **117** **E2** *19° 55′S 43° 55′W*
Belukha, mountain **75** **C4** *49° 48′N 86° 36′E*
Belyuen **62** **C1** *12° 32′S 130° 39′E*
Belyy Island **93** **G6**
Bemidji **109** **E4** *47° 28′N 94° 53′W*
Benalla **35** **E2** *36° 33′S 145° 59′E*
Ben Boyd National Park **27** **G1**
Bend **108** **B4** *44° 4′N 121° 19′W*
Bendemeer **27** **G4** *30° 53′S 151° 9′E*
Bendigo **35** **D2** *36° 45′S 144° 17′E*
Bendora Dam **31** **B4**
Benevento **91** **H5** *41° 8′N 14° 45′E*
Bengal, Bay of **79** **D2**
Bengaluru **79** **C2** *12° 58′N 77° 33′E*
Ben Gardane **91** **G3** *33° 8′N 11° 13′E*
Bengbu **75** **F3** *32° 57′N 117° 20′E*
Benghazi **91** **H3** *32° 7′N 20° 4′E*
Bengkulu **70** **B2** *3° 48′S 102° 16′E*
Bengo, Bay of **100** **C4**
Bengoi **62** **C3** *3° 1′S 130° 11′E*
Benguela **100** **C3** *12° 35′S 13° 24′E*
Beni **101** **D5** *0° 29′N 29° 27′E*
Beni Mazar **83** **A3** *28° 29′N 30° 49′E*
Benin, republic **100** **B6**
Benin City **100** **B5** *6° 21′N 5° 37′E*
Beni Ounif **90** **D3** *32° 3′N 1° 15′W*
Beni River **117** **C2**
Beni Suef **83** **B3** *29° 5′N 31° 5′E*
Ben Lomond National Park **39** **E3**
Ben Nevis, mountain **88** **E3** *56° 48′N 5° 0′W*
Benoni **101** **D2** *26° 9′S 28° 20′E*
Bentinck Island **51** **G6**
Benue River **100** **B5**
Benxi **77** **B4** *41° 20′N 123° 45′E*
Beqa, island **61** **C2** *18° 24′S 178° 9′E*
Beqa Passage **61** **C2**
Berau Bay **62** **C3**
Berber **83** **B2** *18° 1′N 33° 59′E*
Berbera **83** **C2** *10° 26′N 45° 1′E*
Berberati **101** **C5** *4° 15′N 15° 47′E*
Berdyansk **91** **L6** *46° 45′N 36° 47′E*
Bereina **63** **F2** *8° 38′S 146° 33′E*
Berenice **83** **B3** *23° 57′N 35° 29′E*
Berens River **109** **E5** *52° 22′N 97° 2′W*
Berezniki **85** **J4** *59° 25′N 56° 46′E*
Bergamo **91** **G6** *45° 42′N 9° 40′E*
Bergen **85** **E5** *60° 23′N 5° 19′E*
Bering Island **93** **Q4**
Bering Sea **106** **B4**
Bering Strait **106** **B4**
Berkner Island **55** **P3**
Berlin **85** **F4** *52° 31′N 13° 24′E*
Bermagui **35** **F2** *36° 25′S 150° 4′E*
Bermejo River **119** **C4**
Bermuda Islands **111** **F4** *32° 19′N 64° 45′W*
Bern **85** **E3** *46° 55′N 7° 28′E*
Bernardo O'Higgins, Antarctic base **55** **P3** *63° 19′S 57° 54′W*
Berri **34** **B3** *34° 17′S 140° 36′E*
Berridale **35** **F2** *36° 22′S 148° 50′E*
Berrigan **35** **D3** *35° 40′S 145° 49′E*
Bertoua **100** **C5** *4° 35′N 13° 41′E*
Berwick **35** **D2** *38° 2′S 145° 21′E*
Besancon **91** **F6** *47° 14′N 6° 2′E*
Bestobe **81** **F5** *52° 30′N 73° 6′E*
Betani **62** **B2** *9° 9′S 125° 36′E*
Bethel **106** **B4** *60° 48′N 161° 45′W*
Bethlehem **101** **D2** *28° 13′S 28° 18′E*
Betpaqdala Desert, foothills **81** **E4**
Betsiboka River **101** **F3**

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Beulah **34** **C3** *35° 56′S 142° 25′E*
Beverley **47** **C2** *32° 7′S 116° 55′E*
Bezhetsk **89** **N3** *57° 46′N 36° 41′E*
Beziers **90** **E5** *43° 21′N 3° 13′E*
Bhagalpur **79** **D3** *25° 14′N 86° 59′E*
Bharati, Antarctic base **55** **D3** *69° 24′S 76° 11′E*
Bhavnagar **78** **C3** *21° 47′N 72° 8′E*
Bhilai **81** **G2** *21° 13′N 81° 26′E*
Bhilwara **79** **C3** *25° 21′N 74° 38′E*
Bhima River **79** **C2**
Bhisho **101** **D1** *32° 52′S 27° 23′E*
Bhiwandi **79** **C2** *19° 21′N 73° 8′E*
Bhopal **79** **C3** *23° 15′N 77° 24′E*
Bhubaneshwar **79** **D3** *20° 16′N 85° 50′E*
Bhuj **78** **B3** *23° 15′N 69° 49′E*
Bhusawal **79** **C3** *21° 1′N 75° 50′E*
Bhutan, kingdom **79** **E3**
Biak, island **62** **D3** *1° 1′S 135° 58′E*
Biak **62** **D3** *1° 10′S 136° 3′E*
Bialowieza Forest **89** **L2**
Bialystok **89** **K2** *53° 9′N 23° 10′E*
Biarritz **90** **D5** *43° 28′N 1° 34′W*
Bicheno **39** **F3** *41° 53′S 148° 18′E*
Bicoli **62** **B4** *0° 32′N 128° 30′E*
Bidar **79** **C2** *17° 55′N 77° 31′E*
Bielefeld **85** **E4** *52° 2′N 8° 32′E*
Bien Hoa **70** **B4** *10° 58′N 106° 50′E*
Bienville, Lake **107** **K3**
Bie Plateau **101** **C3**
Big Beaver House **107** **I3** *52° 57′N 89° 53′W*
Biger Nuur **75** **D4**
Bigge Island **47** **D6**
Bighorn River **107** **H2**
Bight of Benin **100** **B5**
Big Spring **110** **B4** *32° 15′N 101° 29′W*
Big Trout Lake **109** **E5**
Bihar, state **79** **D3**
Bijapur **79** **C2** *16° 50′N 75° 43′E*
Bijar **83** **C4** *35° 52′N 47° 36′E*
Bikaner **79** **C3** *28° 2′N 73° 20′E*
Bikin **77** **D6** *46° 49′N 134° 16′E*
Bikini, island **59** **F7**
Bikin River **77** **E6**
Bilaspur **79** **D3** *22° 5′N 82° 10′E*
Bila Tserkva **89** **L1** *49° 46′N 30° 8′E*
Bilbao **84** **D3** *43° 15′N 2° 56′W*
Bilibino **93** **Q5** *68° 3′N 166° 20′E*
Billings **108** **D4** *45° 47′N 108° 32′W*
Bilma **99** **E3** *18° 43′N 12° 52′E*
Biloela **23** **D3** *24° 24′S 150° 31′E*
Biloxi **110** **D4** *30° 24′N 88° 53′W*
Bilpa Morea Claypan **23** **B2**
Bimberi Gap **31** **B3** *35° 39′S 148° 47′E*
Bimberi Peak **27** **F2** *35° 40′S 148° 47′E*
Binaiya, mountain **62** **C3** *3° 10′S 129° 25′E*
Binalong **35** **F3** *34° 40′S 148° 38′E*
Binga **101** **D5** *2° 23′N 20° 25′E*
Bingara **27** **G5** *29° 52′S 150° 34′E*
Binghamton **109** **G4** *42° 6′N 75° 55′W*
Bingol **80** **C3** *38° 53′N 40° 30′E*
Binjai **70** **A3** *3° 37′N 98° 30′E*
Binnaway **27** **F4** *31° 33′S 149° 23′E*
Bintulu **71** **C3** *3° 10′N 113° 2′E*
Bintuni **62** **C3** *2° 7′S 133° 38′E*
Bintuni Bay **62** **C3**
Binya National Park **27** **D5**
Bioko, island **100** **B5**
Birak **91** **G2** *27° 32′N 14° 17′E*
Birao **101** **D6** *10° 17′N 22° 47′E*
Biratnagar **74** **C2** *26° 29′N 87° 17′E*
Birchip **34** **C2** *35° 59′S 142° 55′E*
Birdsville **13** **D3** *25° 54′S 139° 22′E*
Birganj **79** **D3** *27° 0′N 84° 52′E*
Birjand **78** **A4** *32° 53′N 59° 13′E*
Birmingham, United Kingdom **84** **D4** *52° 29′N 1° 55′W*
Birmingham, United States of America **110** **D4** *33° 32′N 86° 49′W*
Bir Mogrein **98** **B4** *25° 14′N 11° 35′W*
Birnin Kebbi **98** **D3** *12° 27′N 4° 12′E*
Birobidzhan **77** **D6** *48° 48′N 132° 57′E*
Birregurra **34** **C1** *38° 20′S 143° 47′E*
Birsk **92** **F4** *55° 25′N 55° 33′E*
Biscay, Bay of **84** **D3**
Bishkek **74** **B4** *42° 53′N 74° 35′E*
Bishop **108** **C3** *37° 22′N 119° 24′W*
Biskra **91** **F4** *34° 52′N 5° 44′E*
Bismarck **109** **E4** *46° 48′N 100° 47′W*
Bismarck Archipelago **63** **G3**
Bismarck Sea **63** **F3**
Bissagos Islands, island group **98** **B3**
Bissau **94** **C6** *11° 52′N 15° 36′W*
Bitam **100** **C5** *2° 5′N 11° 29′E*
Bitola **91** **I5** *41° 2′N 21° 20′E*
Biwa, Lake **77** **E3**
Biysk **75** **C5** *52° 32′N 85° 11′E*
Bizerte **91** **F4** *37° 17′N 9° 51′E*
Bjornoya, island **92** **B6**
Blackall **23** **C3** *24° 25′S 145° 28′E*
Black Bottle Mountain **31** **B4** *35° 26′S 148° 41′E*
Black Lake **107** **H3**
Black Mountain, Australian Capital Territory **31** **D5** *35° 16′S 149° 6′E*
Black Mountain, New South Wales **31** **B3** *35° 38′S 148° 42′E*
Blackpool **88** **F2** *53° 50′N 3° 3′W*
Black Sea **85** **H3**
Black Volta **98** **C3**
Blackwater **23** **C3** *23° 35′S 148° 53′E*
Bladensburg National Park **23** **B3**
Blagoveshchensk **75** **G5** *50° 16′N 127° 32′E*
Blair Athol **13** **E3** *22° 41′S 147° 33′E*
Blanc, Cape **98** **B4** *20° 49′N 17° 3′W*
Blanc, Mount **91** **F6** *45° 50′N 6° 52′E*
Blanca Bay **119** **C3**
Blanche, Lake **43** **G6**
Blanquilla, island **111** **F2** *11° 51′N 64° 36′W*
Blantyre **101** **E3** *15° 47′S 34° 59′E*
Blayney **27** **F3** *33° 32′S 149° 15′E*
Blaze, Point **62** **B1** *12° 58′S 130° 7′E*
Blednaya, Mount **93** **H6** *76° 13′N 65° 50′E*
Blenheim **65** **E4** *41° 31′S 173° 58′E*
Blida **90** **E4** *36° 25′N 2° 50′E*
Bligh Water **61** **B3**
Blitar **71** **C2** *8° 4′S 112° 9′E*
Bloemfontein **101** **D2** *29° 7′S 26° 14′E*
Bloomington, Illinois **109** **F4** *40° 29′N 88° 0′W*
Bloomington, Indiana **109** **F3** *39° 10′N 86° 32′W*
Blue and John Crow Mountains **111** **E2**
Blue Bull Peak **31** **F1** *35° 56′S 149° 23′E*
Bluefields **111** **D2** *12° 0′N 83° 46′W*
Blue Mountains National Park **27** **G3**
Blue Nile **83** **B2**
Bluff **65** **C1** *46° 36′S 168° 20′E*
Blumenau **119** **E4** *26° 55′S 49° 5′W*
Blundell, Mount **31** **C5** *35° 18′S 148° 51′E*
Boa Vista **113** **E7** *2° 49′N 60° 40′W*
Bobo Dioulasso **98** **C3** *11° 11′N 4° 17′W*
Boby Peak **101** **F2** *22° 12′S 46° 53′E*
Boca do Acre **117** **C3** *8° 47′S 67° 25′W*
Boco **39** **C3** *41° 40′S 145° 36′E*
Bodalla **35** **F2** *36° 5′S 150° 3′E*
Bodele Depression **99** **E3**
Bodo **89** **I5** *67° 15′N 14° 24′E*
Boende **101** **D4** *0° 13′S 20° 52′E*
Bogan River **27** **E4**
Bogda Peak **75** **C4** *43° 48′N 88° 19′E*
Boggabri **27** **F4** *30° 43′S 150° 2′E*
Bogia **63** **F3** *4° 16′S 144° 58′E*
Bogong, Mount **35** **E2** *36° 44′S 147° 18′E*
Bogor **70** **B2** *6° 34′S 106° 45′E*
Bogota **116** **B4** *4° 36′N 74° 5′W*
Bo Hai **75** **G3**
Bohol, island **71** **D3**
Boise **108** **C4** *43° 37′N 116° 14′W*
Bojnurd **78** **A4** *37° 28′N 57° 19′E*
Bok **63** **F2** *5° 24′S 147° 12′E*
Bolac, Lake **34** **C2**
Boli **77** **C5** *45° 45′N 130° 35′E*
Bolivar Peak **111** **E1** *8° 32′N 71° 2′W*
Bolivia, republic **117** **C2**
Bollard, Mount **31** **F3** *35° 39′S 149° 28′E*
Bollnas **89** **J4** *61° 21′N 16° 22′E*
Bolobo **101** **C4** *2° 10′S 16° 14′E*
Bologna **85** **F3** *44° 30′N 11° 20′E*
Bologoye **89** **M3** *57° 52′N 34° 3′E*
Bolshevik Island **93** **K6**
Bol'shezemel'skaya Tundra **87** **J5**
Bolu **83** **B5** *40° 44′N 31° 36′E*
Bolzano **91** **G6** *46° 30′N 11° 22′E*
Boma **100** **C4** *5° 50′S 13° 3′E*
Bombala **35** **F2** *36° 55′S 149° 14′E*
Bomu River **101** **D5**
Bon, Cape **91** **G4** *37° 4′N 11° 1′E*
Bonaire **111** **F2**
Bonalbo **27** **H5** *28° 44′S 152° 37′E*
Bonaparte Archipelago **47** **D5**
Bondo **101** **D5** *3° 49′N 23° 40′E*
Bongaree **13** **F3** *27° 5′S 153° 9′E*
Bonn **89** **H2** *50° 43′N 7° 5′E*
Boodjamulla / Lawn Hill National Park **51** **G5**
Boolboolma Crossing **31** **F2** *35° 45′S 149° 23′E*
Boorama **83** **C1** *9° 56′N 43° 11′E*
Booroondarra, Mount **27** **D4** *31° 5′S 145° 19′E*
Boorowa **35** **F3** *34° 26′S 148° 43′E*
Boort **34** **C2** *36° 7′S 143° 43′E*
Boosaaso **83** **C2** *11° 17′N 49° 11′E*
Boothia, Gulf of **107** **J5**
Boothia Peninsula **107** **I5**
Bor **101** **E5** *6° 12′N 31° 34′E*
Borang, Cape **62** **C2** *5° 18′S 133° 9′E*
Boras **89** **I3** *57° 44′N 12° 55′E*
Borchgrevink Coast **57** **J3**
Bordeaux **90** **D5** *44° 51′N 0° 36′W*
Bordertown **34** **B2** *36° 18′S 140° 46′E*
Borisoglebsk **91** **M7** *51° 22′N 42° 5′E*
Borlange **89** **J4** *60° 29′N 15° 25′E*
Borneo **69** **H2**
Borovichi **89** **M3** *58° 24′N 33° 54′E*
Borroloola **51** **F7** *16° 4′S 136° 18′E*
Borujerd **99** **H5** *33° 55′N 48° 48′E*
Borzya **75** **F5** *50° 23′N 116° 31′E*
Bose **75** **E2** *23° 54′N 106° 37′E*

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Bosnia and Herzegovina, republic **85** F3
Bosporus, strait **87** G3
Bossangoa **101** C5
6°29'N 17°27'E
Boston **109** G4 *42°20'N 71°4'W*
Botany Bay **27** G2
33°59's 151°11'E
Bothnia, Gulf of **85** F5
Bothwell **39** D2 *42°23's 147°0'E*
Botosani **91** J6 *47°45'N 26°40'E*
Botswana, republic **101** D2
Bouake **98** C2 *7°41'N 5°2'W*
Bougainville, island **63** G2
Bougainville, Cape **47** E6
13°54's 126°6'E
Bougouni **98** C3 *11°25'N 7°29'W*
Bouira **90** E4 *36°23'N 3°54'E*
Boulder **109** D4 *40°2'N 105°15'W*
Boulder City **108** C3
35°59'N 114°50'W
Boulia **13** D3 *22°54's 139°54'E*
Bouma **61** E4
Bourges **90** E6 *47°5'N 2°24'E*
Bourke **27** D4 *30°5's 145°57'E*
Bournemouth **88** F2
50°44'N 1°54'W
Bowen **13** E4 *20°0's 148°13'E*
Bowling Green **109** F3
36°59'N 86°27'W
Bowral **27** G2 *34°29's 150°25'E*
Bozeman **108** C4 *45°41'N 111°2'W*
Bozoum **101** C5 *6°19'N 16°23'E*
Bracknell **39** D3 *41°39's 146°56'E*
Bradford **88** F2 *53°48'N 1°45'W*
Bradshaw Field Training Area **51** C7
Braga **84** D3 *41°33'N 8°25'W*
Brahmapur **79** D2
19°19'N 84°48'E
Brahmaputra River **79** E3
Braidwood **35** F3
35°26's 149°48'E
Brainerd **109** E4 *46°21'N 94°12'W*
Bramina, Mount **31** B4
35°24's 148°41'E
Branco River **116** C4
Brandon **109** D4
49°50'N 99°57'W
Branxholm **39** E3
41°10's 147°45'E
Brasilia **117** E2 *15°47's 47°55'W*
Brasov **85** G3 *45°39'N 25°36'E*
Bratislava **85** F3 *48°9'N 17°7'E*
Bratsk **93** K4 *56°9'N 101°37'E*
Braunschweig **89** I2
52°15'N 10°30'E
Brazil, republic **111** F1
Brazilian Highlands **115** G5
Brazos River **110** C4
Brazzaville **100** C4 *4°15's 15°17'E*
Bream Bay **65** F7
36°0's 174°31'E
Bredasdorp **101** D1
34°32's 20°2'E
Bremen **85** E4 *53°5'N 8°48'E*
Bremerhaven **89** H2
53°33'N 8°35'E
Bremerton **108** B4
47°34'N 122°39'W
Brest, Belarus **85** G4
52°6'N 23°42'E
Brest, France **84** D3
48°23'N 4°30'W
Brett, Cape **65** F7
Brewarrina **27** E5
29°58's 146°52'E
Brewster, Cape **107** Q4
70°9'N 22°7'W
Briagolong **35** E2 *37°51's 147°4'E*
Bridgetown **111** G2
13°6'N 59°37'W
Bridgewater, Tasmania **39** E2
42°44's 147°14'E
Bridgewater, Victoria **35** D2
36°36's 143°57'E
Bridport **39** E4 *41°0's 147°24'E*
Bright **35** E2 *36°44's 146°58'E*
Brighton **39** E2 *42°42's 147°15'E*
Brindabella **31** B4
35°24's 148°45'E
Brindabella Mountain **31** B4
35°23's 148°46'E
Brindabella National Park **31** B5
Brindabella Range **31** B3
Brindisi **91** H5 *40°38'N 17°56'E*
Brisbane **13** F3 *27°27's 153°2'E*
Brisbane Ranges National Park **35** D2
Bristol **84** D4 *51°27'N 2°35'W*
Bristol Bay **106** C3
Bristol Channel **88** E2
British Antarctic Territory **55** P2
British Columbia, province **108** C5
Brive **90** E6 *45°9'N 1°32'E*
Brno **85** F3 *49°12'N 16°37'E*
Broadford **35** D2 *37°12's 145°3'E*
Broadwater National Park **27** H5
Brockville, Canada **109** G4
44°35'N 75°42'W
Brockville, United States of America **107** K2
44°35'N 75°42'W
Brodeur Peninsula **107** J5
Broken Bay **27** G3
33°34's 151°18'E
Broken Hill **26** B4
31°58's 141°28'E
Broken River **35** D2
Brokopondo **117** D4
5°2'N 55°1'W
Brookings **109** E4
44°18'N 96°47'W
Brooks **108** C5 *50°34'N 111°54'W*
Brooks Creek **31** F6
Brooks Range **106** C4
Broome **58** B4 *17°58's 122°14'E*
Brown, Mount **43** G4
32°30's 138°0'E
Brownsville **109** E2
25°55'N 97°30'W
Brownwood **110** C4
31°42'N 98°59'W
Brugge **89** G2 *51°13'N 3°14'E*
Brunei Darussalam, sultanate **71** C3
Brunner, Lake **65** D3
Brunswick **111** D4 *31°9'N 81°29'W*
Brunswick Bay **47** D6
15°10's 124°29'E
Bruny Island **39** E1
Brusque **119** E4 *27°8's 48°56'W*
Brussels **85** E4 *50°50'N 4°20'E*
Bruthen **35** E2 *37°42's 147°50'E*
Bryan, Mount **43** G4
33°26's 138°58'E
Bryan **110** C4 *30°40'N 96°22'W*
Bryansk **85** H4 *53°16'N 34°26'E*
Bua **61** C4 *16°48's 178°37'E*
Buala **63** H2 *8°10's 159°37'E*
Bua Yai **73** C4
Buca **61** D4 *16°38's 179°50'E*
Bucaramanga **111** E1
7°8'N 73°8'W
Buccaneer Archipelago **47** D5
Buchan **35** F2 *37°30's 148°10'E*
Bucharest **85** G3 *44°26'N 26°6'E*
Buckingham Bay **15** D4
Budapest **85** F3 *47°30'N 19°5'E*
Buenaventura **116** B4
3°52'N 77°3'W
Buenos Aires, Lake **119** B2
Buenos Aires **119** C3
34°36's 58°24'W
Bufareh **62** D3 *2°15's 138°51'E*
Buffalo **109** G4 *42°53'N 78°53'W*
Bugrino **89** P5 *68°48'N 49°18'E*
Buguruslan **92** F4
53°40'N 52°26'E
Buin **63** H2 *6°45's 155°41'E*
Bujumbura **101** D4
3°23's 29°22'E
Buk **62** E2 *8°28's 142°27'E*
Bukachacha **75** F5
52°59'N 116°55'E
Buka Island **63** G2
5°6's 154°37'E
Bukama **101** D4 *9°13's 25°50'E*
Bukittinggi **70** B2
0°18's 100°22'E
Bula **62** C3 *3°7's 130°30'E*
Bulahdelah **27** G3
32°24's 152°13'E
Bulawayo **101** D3
20°10's 28°35'E
Bulgaria, republic **85** G3
Bulileka **61** D4 *16°29's 179°28'E*
Buliya, island **61** C2
18°51's 178°32'E
Bulla **62** E2 *9°6's 141°19'E*
Buller, Mount **35** E2
37°9's 146°26'E
Bulleringa National Park **23** B4
Bullongong, Mount **31** E3
35°37's 149°18'E
Bulloo River **23** B2
Bulman **51** E8 *13°40's 134°20'E*
Bulolo **63** F2 *7°12's 146°38'E*
Bumba **101** D5 *2°11'N 22°28'E*
Buna **63** F2 *8°40's 148°24'E*
Bunbury **12** B2 *33°21's 115°39'E*
Bundaberg **13** F3
24°53's 152°21'E
Bundarra **27** G4 *30°10's 151°5'E*
Bundjalung National Park **27** H5
Bungendore **35** F3
35°15's 149°26'E
Bungle Bungle Range **51** A6
Bungo Channel **77** D2
Bunia **101** D5 *1°34'N 30°14'E*
Buninyong **35** C2
37°39's 143°53'E
Buon Me Thuot **70** B4
12°40'N 108°3'E
Buraydah **83** C3
26°22'N 43°58'E
Burco **83** C1 *9°31'N 45°32'E*
Burdekin River **23** C4
Bureinskiy Range **75** H5
Burgas **85** G3 *42°31'N 27°28'E*
Burgos **90** D5 *42°21'N 3°41'W*
Burhanpur **79** C3 *21°18'N 76°8'E*
Buriram **70** B4 *15°0'N 103°7'E*
Burketown **51** G6
17°44's 139°33'E
Burkina Faso, republic **100** A6
Burley **108** C4 *42°32'N 113°48'W*
Burley Griffin, Lake **31** D5
Burlington, Iowa **109** E4
40°48'N 91°7'W
Burlington, Vermont **109** G4
44°29'N 73°13'W
Burnie **39** C3 *41°3's 145°54'E*
Burnt Hill **31** C1 *35°54's 149°0'E*
Burra, New South Wales **31** E3
35°33's 149°14'E
Burra, South Australia **43** G4
33°40's 138°56'E
Burrandong, Lake **27** F3
Burrinjuck, Lake **31** B6
Burrowa, Mount **35** E2
36°5's 147°42'E
Burrup Peninsula **12** B3
Bursa **85** G3 *40°12'N 29°4'E*
Bur Safaga **83** B3
26°44'N 33°56'E
Buru, island **62** B3
Burundi, republic **101** D4
Burun-Shibertuy, mountain **75** F5 *49°42'N 109°59'E*
Burylbaytal **92** H3
44°56'N 74°2'E
Busan **67** I4 *35°6'N 129°0'E*
Busselton **47** C2 *33°39's 115°21'E*
Butare **101** E4 *2°35's 29°44'E*
Butaritari, island **59** G6
Butembo **101** D5 *0°8'N 29°17'E*
Butte **108** C4 *46°0'N 112°32'W*
Butterworth **79** E1
5°25'N 100°24'E
Butuan **71** D3 *8°57'N 125°33'E*
Buur Gaabo **101** F4 *1°12's 41°51'E*
Buxoro **81** E3 *39°47'N 64°26'E*

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Buyant-Uhaa **75** **E4** *44°52′N 110°9′E*
Buzau **91** **J6** *45°9′N 26°48′E*
Buzuluk **92** **F4** *52°47′N 52°16′E*
Bwindi Impenetrable National Park **101** **E4**
Bydgoszcz **89** **J2** *53°7′N 18°1′E*
Bylot Island **107** **K5**
Byrd, Antarctic base **55** **L4** *80°01′S 119°32′W*
Byron, Cape **27** **H5** *28°38′S 153°38′E*
Byron Bay **27** **H5** *28°39′S 153°37′E*

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Caazapa **117** **D1** *26°12′S 56°23′W*
Cabanatuan **71** **D4** *15°30′N 120°58′E*
Cabimas **111** **E2** *10°26′N 71°27′W*
Cabinda **100** **C4** *5°34′S 12°11′E*
Caboolture **23** **D2** *27°5′S 152°57′E*
Caborca **110** **A4** *30°43′N 112°10′W*
Cabo San Lucas **110** **A3** *22°54′N 109°54′W*
Cabramurra **35** **F3** *35°56′S 148°23′E*
Cachoeira do Sul **119** **D3** *30°2′S 52°55′W*
Cacolo **101** **C3** *10°9′S 19°16′E*
Cadibarrawirracanna, Lake **43** **E6**
Cadillac **109** **F4** *44°15′N 85°25′W*
Cadiz **71** **D4** *10°58′N 123°19′E*
Caen **88** **F1** *49°11′N 0°21′W*
Cagayan de Oro **71** **D3** *8°27′N 124°41′E*
Cagliari **91** **F4** *39°13′N 9°6′E*
Cahora Bassa, Lake **101** **E3**
Cahul **91** **J6** *45°54′N 28°12′E*
Caico **117** **F3** *6°28′S 37°6′W*
Caird Coast **57** **P3**
Cairns **23** **C4** *16°55′S 145°46′E*
Cairo **83** **B4** *30°3′N 31°15′E*
Cajamarca **116** **B3** *7°9′S 78°32′W*
Cakova **61** **D2** *18°38′S 179°53′E*
Calabar **100** **B5** *4°58′N 8°20′E*
Calabozo **111** **F1** *8°56′N 67°26′W*
Calabria, range **91** **H4**
Calais **89** **G2** *50°57′N 1°50′E*
Calama **117** **C1** *22°27′S 68°55′W*
Calamian Group **71** **C4**
Calarasi **91** **J5** *44°12′N 27°20′E*
Calbayog **71** **D4** *12°4′N 124°36′E*
Caldera **119** **B4** *27°4′S 70°50′W*
Caldwell **108** **C4** *43°40′N 116°40′W*
Calgary **108** **C5** *51°5′N 114°5′W*
Cali **113** **D7** *3°24′N 76°30′W*
California, state **108** **C3**
California, Gulf of **110** **A3**
Callabonna, Lake **43** **H6**
Callao **116** **B2** *12°4′S 77°8′W*
Caloundra **23** **D2** *26°48′S 153°8′E*
Caluula **83** **D2** *11°58′N 50°45′E*
Camabatela **101** **C4** *8°11′S 15°22′E*
Camaguey **111** **E3** *21°23′N 77°55′W*
Camana **116** **B2** *16°37′S 72°43′W*
Camara, Antarctic base **55** **O2** *62°35′S 59°55′W*
Ca Mau **73** **D2** *9°11′N 105°9′E*
Ca Mau Point, cape **73** **D2**
Cambodia, kingdom **73** **D3**
Cambridge **65** **F6**
Cambridge Bay **107** **H4** *69°7′N 105°2′W*
Camden **27** **G2** *34°3′S 150°40′E*
Camden Haven **27** **H4** *31°39′S 152°48′E*
Cameroon, Mount **97** **F5** *4°13′N 9°10′E*
Cameroon, republic **100** **C5**
Cameta **117** **D3** *2°14′S 49°31′W*
Camiri **117** **C2** *20°3′S 63°31′W*
Camocim **117** **E3** *2°54′S 40°51′W*
Camooweal **51** **G5** *19°55′S 138°7′E*
Campania **39** **E2** *42°40′S 147°25′E*
Campbell, Cape **65** **F4**
Campbell Island **55** **I2**
Campbell River **106** **F2** *50°1′N 125°15′W*
Campbell Town **39** **E3** *41°56′S 147°30′E*
Campeche, Bay of **110** **C2**
Campeche **110** **C2** *19°50′N 90°30′W*
Camperdown **34** **C1** *38°14′S 143°9′E*
Cam Pha **75** **E2** *21°2′N 107°19′E*
Campina Grande **113** **H6** *7°14′S 35°53′W*
Campinas **117** **E1** *22°54′S 47°6′W*
Campo Grande **117** **D1** *20°27′S 54°37′W*
Campo Maior **117** **E3** *4°49′S 42°11′W*
Campos **113** **G4** *21°45′S 41°19′W*
Cam Ranh **71** **B4** *11°54′N 109°13′E*
Camrose **106** **G3** *53°1′N 112°49′W*
Canada, commonwealth **109** **E5**
Canadian Rocky Mountain Parks **108** **C5**
Canaima National Park **111** **F1**
Canakkale **83** **A4** *40°9′N 26°24′E*
Cananea **110** **A4** *30°59′N 110°18′W*
Canary Islands, island group **98** **B4**
Canaveral, Cape **111** **E3** *28°29′N 80°32′W*
Canberra **31** **D2** *35°17′S 149°8′E*
Canberra Airport **31** **E5** *35°18′S 149°11′E*
Cancun **110** **D3** *21°10′N 86°50′W*
Cangamba **101** **C3** *13°42′S 19°52′E*
Cangzhou **75** **F3** *38°19′N 116°52′E*
Cann, Mount **35** **F2** *37°39′S 148°59′E*
Cann River **35** **F2** *37°34′S 149°9′E*
Canoas **119** **D4** *29°55′S 51°11′W*
Canowindra **27** **F3** *33°34′S 148°40′E*
Canterbury Bight **65** **E2** *44°0′S 172°2′E*
Canterbury Plains **65** **D3**
Can Tho **70** **B4** *10°3′N 105°46′E*
Canton **109** **F4** *40°48′N 81°23′W*
Cao Bang **73** **D6**
Cao Lanh **73** **D3**
Cape Arid National Park **47** **D2**
Cape Barren Island **39** **F4**
Cape Breton Island **107** **M2**
Cape Coral **111** **D3** *26°36′N 81°59′W*
Cape Crawford Roadhouse **51** **E6** *16°41′S 135°43′E*
Cape Dorset **107** **K4** *64°19′N 76°32′W*
Cape Floral Region Protected Areas **101** **C1**
Cape Girardeau **109** **F3** *37°18′N 89°31′W*
Capella, mountain **62** **E3** *5°2′S 141°5′E*
Capenda Camulemba **101** **C4** *9°25′S 18°26′E*
Cape Town **101** **C1** *33°55′S 18°26′E*
Cape Tribulation National Park **23** **C4**
Cape Verde, republic **94** **B6**
Cape Verde Islands **96** **B6**
Cap-Haitien, Haiti **111** **E2** *19°46′N 72°13′W*
Capital Hill **31** **D5** *35°18′S 149°8′E*
Capitan Pablo Lagerenza **117** **D1** *19°55′S 60°47′W*
Capoeiras Falls, waterfall **117** **D3**
Capricorn Group **23** **D3**
Capt. Arturo Prat, Antarctic base **55** **O2** *62°30′S 59°41′W*
Captains Flat **31** **F3** *35°35′S 149°27′E*
Caqueta River **116** **B3**
Caracarai **116** **C4** *1°49′N 61°8′W*
Caracas **117** **C5** *10°30′N 66°55′W*
Caratasca Lagoon **111** **D2**
Cardiff **84** **D4** *51°30′N 3°14′W*
Carey, Lake **47** **D3**
Caribbean Sea **111** **E2**
Carlini, Antarctic base **55** **P2** *62°14′S 58°40′W*
Carlisle **88** **F3** *54°53′N 2°56′W*
Carlsbad **110** **B4** *32°25′N 104°14′W*
Carlsbad Caverns National Park **110** **B4**
Carlton **39** **E2** *42°52′S 147°38′E*
Carmen Island **108** **C2**
Carnarvon, Australia **47** **B4** *24°53′S 113°40′E*
Carnarvon, South Africa **101** **D1** *30°57′S 22°8′E*
Carnarvon National Park **23** **C3**
Carnarvon Range **14** **B3**
Carnegie, Lake **47** **D3**
Caroline Islands **71** **E3**
Caroni River **111** **F1**
Carora **111** **E2** *10°11′N 70°5′W*
Carpathian Mountains **87** **G3**
Carpentaria, Gulf of **51** **G7**
Carrauntoohil, mountain **86** **C4** *52°0′N 9°45′W*
Carrick **39** **D3** *41°32′S 147°0′E*
Carson City **108** **C3** *39°10′N 119°46′W*
Carstensz Pyramid, mountain **62** **D3** *4°5′S 137°11′E*
Cartagena, Colombia **111** **E2** *10°24′N 75°31′W*
Cartagena, Spain **84** **E2** *37°36′N 0°59′W*
Cartwright **107** **M3** *53°42′N 57°1′W*
Caruaru **117** **F3** *8°17′S 35°59′W*
Casablanca **90** **C3** *33°36′N 7°37′W*
Casa Grande **110** **A4** *32°53′N 111°45′W*
Cascade Range **108** **B4**
Caserta **91** **G5** *41°4′N 14°20′E*
Casey, Antarctic base **55** **F3** *66°17′S 110°32′E*
Casino **27** **H5** *28°51′S 153°3′E*
Casper **109** **D4** *42°52′N 106°19′W*
Caspian Depression, plain **81** **D4**
Caspian Sea **85** **I3**
Castanhal **117** **E3** *1°17′S 47°56′W*
Castello **90** **E5**
Casterton **34** **B2** *37°35′S 141°24′E*
Castlemaine **35** **D2** *37°4′S 144°13′E*
Castlereagh River **27** **F4**
Castries **111** **F2** *14°0′N 61°0′W*
Castro **119** **B2** *42°29′S 73°46′W*
Caswell Sound **65** **B2** *45°1′S 167°11′E*
Catamarca **119** **C4** *28°28′S 65°47′W*
Catania **85** **F2** *37°30′N 15°5′E*
Catanzaro **91** **H4** *38°54′N 16°36′E*
Cat Island **111** **E3** *24°25′N 75°31′W*
Cat Lake **109** **E5** *51°43′N 91°48′W*
Catoche, Cape **110** **D3**
Cauca River **111** **E1**
Caucasus Mountains **68** **E4**

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Cawndilla, Lake **26** **B3**
Caxias do Sul **113** **G4**
29° 11′S 51° 10′W
Cayambe **116** **B4** *0° 3′N 78° 10′W*
Cayenne **117** **D4** *4° 56′N 52° 20′W*
Cayman Brac, island **111** **E2**
19° 44′N 79° 48′W
Cayman Islands **111** **D2**
Cayman Trench **111** **E2**
Cazombo **101** **D3** *11° 53′S 22° 54′E*
Cebu **71** **D4** *10° 19′N 123° 54′E*
Cedar City **108** **C3**
37° 41′N 113° 4′W
Cedar Rapids **109** **E4**
41° 58′N 91° 40′W
Cedros Island, mountain **108** **C2**
Ceduna **43** **D4** *32° 7′S 133° 41′E*
Celaya **110** **B3**
20° 32′N 100° 48′W
Celebes Sea **71** **D3**
Celeken **83** **D4** *39° 26′N 53° 7′E*
Cenderawasih, Gulf of **62** **D3**
Central African Republic, republic **101** **D5**
Central Amazon Conservation Complex **117** **C3**
Centralia **108** **B4**
46° 43′N 122° 57′W
Central Makran, range **78** **B3**
Central Mount Wedge **51** **C3**
22° 51′S 131° 50′E
Central Range **62** **E3**
Central Russian Upland **87** **H4**
Central Siberian Plateau **69** **H5**
Central Sikhote-Alin **77** **E5**
Central Suriname Nature Reserve **117** **D4**
Cerrado Protected Areas: Chapada dos Veadeiros and Emas National Park **119** **D5**
Cerro de Pasco **116** **B2**
10° 41′S 76° 16′W
Ceske Budejovice **89** **J1**
48° 59′N 14° 28′E
Cessnock **27** **G3** *32° 50′S 151° 21′E*
Ceuta **95** **D8** *35° 18′N 2° 57′W*
Chabahar **78** **B3** *25° 18′N 60° 38′E*
Chacabuco **119** **D3**
34° 39′S 60° 29′W
Chaco Austral **117** **C1**
Chacorao Falls **117** **D3**
Chad, Lake **99** **E3**
Chad, republic **101** **C6**
Chadron **109** **D4**
42° 50′N 103° 0′W
Chainat **73** **C4**
Chaine Annamitique, range **70** **B4**
Chaiyaphum, Thailand **70** **B4**
15° 48′N 102° 2′E
Chalkida **91** **I4** *38° 28′N 23° 37′E*
Chalky Inlet **65** **B1**
46° 1′S 166° 35′E
Chaman **81** **E3** *30° 56′N 66° 27′E*
Chambal River **79** **C3**
Chamo, Lake **101** **E5**
Champasak **73** **D4**
Champoton **110** **C2**
19° 21′N 90° 43′W
Chandigarh, state **79** **C4**
30° 43′N 76° 47′E
Chandrapur **79** **D2**
19° 58′N 79° 18′E
Changbai Mountains **77** **C5**
Changchun **77** **B5**
43° 52′N 125° 20′E
Changde **75** **F2** *29° 2′N 111° 41′E*
Changhua **75** **F2** *24° 4′N 120° 31′E*
Changling **77** **A5**
44° 16′N 123° 59′E
Changping **75** **F4**
40° 13′N 116° 12′E
Changsha **75** **F2**
28° 12′N 112° 58′E
Changyon **77** **B4** *38° 15′N 125° 6′E*
Changzhi **75** **F3** *36° 11′N 113° 6′E*
Changzhou **75** **G3**
31° 47′N 119° 58′E
Channel Country **26** **C5**
Channel Islands **86** **D3**
Chanthaburi **79** **F2**
12° 37′N 102° 6′E
Chany, Lake **81** **F5**
Chaor River **77** **A6**
Chaozhou **75** **F2**
23° 41′N 116° 38′E
Chapada dos Veadeiros National Park **117** **E2**
Chapala, Lake **110** **B3**
Chapleau **109** **F4**
47° 50′N 83° 24′W
Chappell Islands **39** **E4**
Charata **119** **C4** *27° 13′S 61° 12′W*
Charcot, Antarctic base **55** **G3**
69° 22′S 139° 1′E
Charikar **78** **B4** *35° 1′N 69° 10′E*
Chari River **101** **C6**
Charleroi **89** **G2** *50° 25′N 4° 27′E*
Charleston, South Carolina **111** **E4** *32° 48′N 79° 0′W*
Charleston, West Virginia **109** **F3** *38° 21′N 81° 38′W*
Charleville **23** **C2**
26° 24′S 146° 15′E
Charlotte **109** **F3**
35° 12′N 80° 50′W
Charlotte Pass **35** **F2**
Charlotte Pass, mountain **15** **E2**
36° 25′S 148° 20′E
Charlottetown **107** **L2**
46° 15′N 63° 8′W
Charlton **34** **C2** *36° 16′S 143° 21′E*
Charters Towers **23** **C3**
20° 5′S 146° 16′E
Charybdis Reef **61** **B3**
Chatham Islands **59** **H1**
Chattanooga **109** **F3**
35° 4′N 85° 15′W
Chau Doc **70** **B4** *10° 42′N 105° 7′E*
Chauk **70** **A5** *20° 55′N 94° 49′E*
Cheboksary **85** **I4** *56° 8′N 47° 15′E*
Chech Desert **97** **D7**
Chegga **90** **C2** *25° 23′N 5° 47′W*
Cheju Island **77** **B2**
Cheju Strait **75** **G3**
Chelia, Mount **91** **F4**
35° 20′N 6° 40′E
Chelyabinsk **67** **F5**
55° 9′N 61° 26′E
Chelyuskin, Cape **93** **L6**
Chemnitz **89** **I2** *50° 50′N 12° 55′E*
Chengdu **79** **F4** *30° 40′N 104° 4′E*
Chengjiang Fossil Site **75** **E2**
Chennai **79** **D2** *13° 6′N 80° 17′E*
Cheongju **77** **B3**
36° 39′N 127° 30′E
Cherbourg **88** **F1** *49° 39′N 1° 39′W*
Cheremkhovo **93** **K4**
53° 10′N 103° 4′E
Cherepovets **89** **N3**
59° 8′N 37° 55′E
Cherkasy **85** **H3** *49° 26′N 32° 4′E*
Cherkessk **83** **C5** *44° 17′N 42° 4′E*
Chernihiv **89** **M2** *51° 30′N 31° 18′E*
Chernivtsi **89** **L1** *48° 18′N 25° 55′E*
Chernobyl **89** **L2** *51° 23′N 30° 6′E*
Chernyakhovsk **89** **K2**
54° 38′N 21° 49′E
Cherskiy Range **93** **O5**
Chesapeake Bay **109** **G3**
Chesterfield Inlet **107** **I4**
63° 20′N 90° 42′W
Chetumal **110** **D2**
18° 30′N 88° 18′W
Cheyenne **109** **D4**
41° 8′N 104° 49′W
Cheyenne River **109** **D4**
Chhattisgarh, state **79** **D3**
Chiang Mai **79** **E2**
18° 48′N 98° 59′E
Chiang Rai **79** **E2**
19° 55′N 99° 50′E
Chiayi **75** **G2** *23° 29′N 120° 26′E*
Chibemba **100** **C3** *15° 45′S 14° 5′E*
Chicago **109** **F4**
41° 50′N 87° 45′W
Chiclayo **116** **A3** *6° 46′S 79° 50′W*
Chico **108** **B3** *39° 44′N 121° 50′W*
Chico River **119** **B2**
Chicoutimi **109** **G4**
48° 26′N 71° 4′W
Chidley, Cape **105** **M8**
Chifeng **75** **F4** *42° 16′N 119° 57′E*
Chifley **31** **D4** *35° 21′S 149° 5′E*
Chihuahua **110** **B3**
28° 39′N 106° 5′W
Childress **110** **B4**
34° 25′N 100° 13′W
Chile, republic **117** **C1**
Chillan **119** **B3** *36° 36′S 72° 6′W*
Chiloe Island **119** **B2**
Chilpancingo **110** **C2**
17° 33′N 99° 30′W
Chiltern **35** **E2** *36° 9′S 146° 37′E*
Chimborazo, mountain **116** **B3**
1° 28′S 78° 49′W
Chimbote **116** **B3** *9° 4′S 78° 34′W*
Chimoio **101** **E3** *19° 7′S 33° 28′E*
China, republic **73** **E5**
China Danxia **75** **F2**
Chinandega **110** **D2**
12° 38′N 87° 8′W
Chincha Alta **113** **D5**
13° 25′S 76° 8′W
Chinchilla **23** **D2**
26° 44′S 150° 38′E
Chindwin River **79** **E3**
Chingola **101** **D3** *12° 32′S 27° 51′E*
Chinhoyi **101** **D3** *17° 22′S 30° 11′E*
Chin Island **77** **B3**
34° 31′N 126° 16′E
Chinsali **101** **E3** *10° 33′S 32° 4′E*
Chipata **101** **E3** *13° 38′S 32° 38′E*
Chirala **79** **D2** *15° 52′N 80° 20′E*
Chiramba **101** **E3** *16° 54′S 34° 39′E*
Chiriqui, Gulf of **111** **D1**
Chiri-san, mountain **77** **B3**
35° 20′N 127° 44′E
Chirripo Grande, mountain **111** **D1** *9° 29′N 83° 29′W*
Chisinau **85** **G3** *47° 0′N 28° 51′E*
Chistopol **81** **D5** *55° 22′N 50° 38′E*
Chita **75** **F5** *52° 3′N 113° 28′E*
Chitipa **101** **E4** *9° 43′S 33° 16′E*
Chitre **111** **D1** *7° 58′N 80° 25′W*
Chittagong **79** **E3**
22° 20′N 91° 48′E
Chitungwiza **101** **E3** *18° 0′S 31° 6′E*
Chlef **90** **E4** *36° 10′N 1° 19′E*
Choiseul, island **63** **H2**
Choluteca **110** **D2**
13° 18′N 87° 11′W
Choma **101** **D3** *16° 49′S 26° 58′E*
Chon Buri **73** **C3**
Chongjin **77** **C4** *41° 47′N 129° 47′E*
Chongju **77** **B4** *39° 41′N 125° 13′E*
Chongqing **79** **F3**
29° 34′N 106° 36′E
Chonos Archipelago, island **115** **D2**
Chosan **77** **B4** *40° 50′N 125° 48′E*
Chota Nagpur Plateau **79** **D3**
Choybalsan **75** **F4**
48° 4′N 114° 30′E
Christchurch **65** **E3**
43° 32′S 172° 38′E
Christiansted **111** **F2**
17° 45′N 64° 45′W
Christmas Island **70** **B1**
Chubut River **115** **E2**
Chugoku Mountains **77** **D3**
Chukai **70** **B3** *4° 14′N 103° 27′E*
Chukchi Peninsula **93** **S5**
Chukchi Range **93** **R5**
Chukchi Sea **106** **B5**
Chulucanas **116** **B3**
5° 5′S 80° 10′W
Chumphon **73** **B3**
Chuncheon **77** **C3**
37° 52′N 127° 44′E
Chungli **75** **G2** *24° 58′N 121° 13′E*
Chuquicamata **117** **C1**
22° 19′S 68° 56′W
Churchill **107** **I3** *58° 46′N 94° 10′W*

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Churchill, Cape **107** **I3** *58°45′N 93°11′W*
Churchill Lake **107** **H3**
Churchill Peak **106** **F3** *58°27′N 125°20′W*
Churchill River **107** **H3**
Chuxiong **79** **F3** *25°2′N 101°33′E*
Ciego de Avila **111** **E3** *21°50′N 78°46′W*
Cienfuegos **111** **D3** *22°9′N 80°26′W*
Cikobia, island **61** **E5** *15°45′S 179°55′W*
Cilacap **71** **B2** *7°43′S 109°1′E*
Cincinnati **109** **F3** *39°10′N 84°28′W*
Cirebon **70** **B2** *6°44′S 108°34′E*
Citlaltepetl, mountain **105** **J3** *19°1′N 97°16′W*
Ciudad Altamirano **110** **B2** *18°19′N 100°39′W*
Ciudad Bolivar **111** **F1** *8°6′N 63°36′W*
Ciudad Camargo **110** **B3** *27°41′N 105°10′W*
Ciudad Constitucion **110** **A3** *25°2′N 111°40′W*
Ciudad del Carmen **110** **C2** *18°39′N 91°49′W*
Ciudad del Este **117** **D1** *25°31′S 54°37′W*
Ciudad Guayana **111** **F1** *8°22′N 62°37′W*
Ciudad Hidalgo **110** **B2** *19°41′N 100°34′W*
Ciudad Juarez **108** **D3** *31°42′N 106°30′W*
Ciudad Madero **110** **C3** *22°19′N 97°50′W*
Ciudad Mante **109** **E2** *22°44′N 98°57′W*
Ciudad Obregon **110** **B3** *27°28′N 109°55′W*
Ciudad Valles **110** **C3** *21°59′N 99°1′W*
Ciudad Victoria **110** **C3** *23°43′N 99°8′W*
Civitavecchia **91** **G5** *42°6′N 11°48′E*
Clare, Lake **107** **G3**
Clare **43** **G4** *33°50′S 138°37′E*
Clarence River **27** **H5**
Clarence Strait **62** **C1**
Clarie Coast **57** **G3**
Clarion, Island **110** **A2** *18°21′N 114°45′W*
Clarke Island **39** **E4**
Clear, Cape **86** **C4** *51°26′N 9°30′W*
Clear, Mount **31** **D1** *35°53′S 149°4′E*
Clear Range **31** **D2**
Cleburne **110** **C4** *32°21′N 97°24′W*
Clermont **23** **C3** *22°49′S 147°38′E*
Clermont-Ferrand **90** **E6** *45°47′N 3°5′E*
Cleveland, Mount **108** **C4** *48°56′N 113°51′W*
Cleveland **109** **F4** *41°28′N 81°42′W*
Cliffs of Bandiagara (Land of the Dogons) **98** **C3**
Clifton Beach **23** **C4** *16°47′S 145°40′E*
Clipperton Island **110** **B2** *10°19′N 109°13′W*
Cliza **117** **C2** *17°35′S 65°56′W*
Cloncurry **51** **H4** *20°42′S 140°31′E*
Clovis **109** **D3** *34°24′N 103°12′W*
Cluj-Napoca **91** **I6** *46°47′N 23°36′E*
Clunes **34** **C2** *37°18′S 143°47′E*
Clutha River **65** **C2**
Coalcoman **110** **B2** *18°47′N 103°9′W*
Coast Mountains **105** **G7**
Coats Island **107** **J4**
Coats Land **57** **Q3**
Coatzacoalcos **110** **C2** *18°7′N 94°25′W*
Coban **110** **D2** *15°28′N 90°23′W*
Cobar **27** **D4** *31°30′S 145°51′E*
Cobberas Number 1, Mount **35** **F2** *36°52′S 148°9′E*
Cobden **34** **C1** *38°20′S 143°4′E*
Cobija **117** **C2** *11°1′S 68°46′W*
Cobourg Peninsula **51** **D9**
Cobram **35** **D3** *35°55′S 145°38′E*
Coburg **89** **I2** *50°16′N 10°58′E*
Cochabamba **117** **C2** *17°25′S 66°10′W*
Cochrane **109** **F4** *49°4′N 81°1′W*
Cockburn, Mount **43** **B8** *25°56′S 129°26′E*
Cockburn **26** **B4** *32°5′S 141°0′E*
Cocoparra National Park **35** **E3**
Coco River **111** **D2**
Cocuy, mountain **115** **D7** *6°22′N 72°17′W*
Cod, Cape **109** **H4** *41°44′N 69°58′W*
Codfish Island **65** **B1** *46°46′S 167°37′E*
Codo **117** **E3** *4°29′S 43°53′W*
Coen **62** **E1** *13°56′S 143°12′E*
Coetivy, island **101** **G4**
Coffin Bay **43** **E3** *34°37′S 135°28′E*
Coffin Bay National Park **43** **E3**
Coffs Harbour **27** **H4** *30°18′S 153°7′E*
Cohuna **35** **D3** *35°48′S 144°13′E*
Coiba Island **111** **D1** *7°31′N 81°47′W*
Coiba National Park **111** **D1**
Coihaique **119** **B2** *45°34′S 72°4′W*
Coimbatore **79** **C2** *11°0′N 76°57′E*
Coimbra **90** **C5** *40°12′N 8°25′W*
Cojedes River **111** **F1**
Colac **34** **C1** *38°20′S 143°35′E*
Coleambally **35** **D3** *34°48′S 145°53′E*
Coleraine **34** **B2** *37°36′S 141°41′E*
Coleridge, Lake **65** **D3**
Coles Bay **39** **F2** *42°8′S 148°17′E*
Colhue Huapi, Lake **119** **C2**
Colima, mountain **110** **B2** *19°34′N 103°38′W*
Colima **110** **B2** *19°14′N 103°43′W*
Colinas **117** **E3** *6°2′S 44°14′W*
Colinton, Mount **31** **E1** *35°52′S 149°12′E*
Colinton **31** **E1** *35°52′S 149°9′E*
Collarenebri **27** **F5** *29°33′S 148°35′E*
Collie **47** **C2** *33°22′S 116°9′E*
Collier Bay **47** **D5** *16°13′S 124°15′E*
Collier Range National Park **47** **C4**
Collinsville **23** **C3** *20°33′S 147°51′E*
Colombia, republic **111** **E1**
Colombo **79** **C1** *6°56′N 79°51′E*
Colon, Cuba **111** **D3** *22°43′N 80°54′W*
Colon, Panama **111** **D1** *9°22′N 79°52′W*
Colorado, state **109** **D3**
Colorado Plateau **110** **B4**
Colorado River **108** **C3**
Colorado Springs **109** **D3** *38°52′N 104°48′W*
Columbia **111** **D4** *34°2′N 80°54′W*
Columbia, Mount **106** **G3** *52°9′N 117°21′W*
Columbia Mountains **106** **G3**
Columbia River **108** **B4**
Columbus, Georgia **111** **D4** *32°28′N 84°59′W*
Columbus, Ohio **109** **F4** *39°59′N 82°0′W*
Colville River **106** **C4**
Colvocoresses Bay **57** **F3**
Comandante Ferraz, Antarctic base **55** **P2** *62°5′S 58°24′W*
Comandante Fontana **117** **D1** *25°20′S 59°41′W*
Comayagua **110** **D2** *14°28′N 87°39′W*
Comilla **75** **D2** *23°28′N 91°10′E*
Commonwealth Bay **57** **H3**
Comodoro Rivadavia **119** **C2** *45°52′S 67°30′W*
Comoe National Park **98** **C2**
Comorin, Cape **79** **C1** *8°9′N 77°28′E*
Comoros, republic **101** **F3**
Comoros Islands **97** **I3**
Conakry **98** **B2** *9°32′N 13°41′W*
Concepcion, Chile **119** **B3** *36°50′S 73°3′W*
Concepcion, Lake **117** **C2**
Concepcion, Paraguay **117** **D1** *23°24′S 57°26′W*
Conception, Lake **119** **C5**
Conception, Point **108** **B3** *34°35′N 120°40′W*
Concord **109** **G4** *43°12′N 71°32′W*
Concordia, Antarctic base **55** **G3** *75°6′S 123°20′E*
Concordia, Argentina **119** **D3** *31°23′S 58°2′W*
Concordia, United States of America **109** **E3** *39°38′N 97°42′W*
Condamine River **23** **D2**
Condobolin **27** **E3** *33°5′S 147°9′E*
Congo, republic **100** **C4**
Congo Basin **97** **G4**
Congo River **100** **C4**
Connecticut, state **109** **G4**
Conoble Lake **26** **D3**
Constanta **85** **G3** *44°12′N 28°37′E*
Constantine **91** **F4** *36°22′N 6°36′E*
Constitucion **119** **B3** *35°20′S 72°25′W*
Consuelo Peak **23** **C2** *24°57′S 148°10′E*
Conway, Mount **51** **D3** *23°45′S 133°26′E*
Coober Pedy **43** **E6** *29°0′S 134°46′E*
Cook (Aoraki), Mount **65** **D3** *43°36′S 170°8′E*
Cook, Australian Capital Territory **31** **D5** *35°16′S 149°4′E*
Cook, South Australia **43** **C5** *30°37′S 130°25′E*
Cook Ice Shelf **57** **H3**
Cook Inlet **106** **C3**
Cook Islands **59** **I4**
Cook Strait **65** **F4**
Cooktown **23** **C4** *15°28′S 145°15′E*
Coolah **27** **F4** *31°50′S 149°43′E*
Coolah Tops National Park **27** **G4**
Coolamon **35** **E3** *34°49′S 147°12′E*
Coolgardie **47** **D2** *30°57′S 121°10′E*
Cooma **35** **F2** *36°14′S 149°8′E*
Coonabarabran **27** **F4** *31°17′S 149°17′E*
Coonalpyn **43** **H3** *35°42′S 139°51′E*
Coonamble **27** **F4** *30°57′S 148°23′E*
Cooper Creek **43** **G6**
Coopracambra National Park **35** **F2**
Coorabie **13** **D2** *31°54′S 132°18′E*
Coorong National Park **43** **G2**
Coos Bay **108** **B4** *43°22′N 124°13′W*

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Cootamundra **35** E3
34° 38′S 148° 2′E
Copenhagen **92** B4
55° 41′N 12° 34′E
Copiapo **119** C4
27° 22′S 70° 20′W
Coppermine River **107** G4
Coraki **27** H5 *29° 0′S 153° 17′E*
Coral Harbour **107** J4
64° 9′N 83° 11′W
Coral Sea **23** C5
Coral Springs **111** D3
26° 16′N 80° 16′W
Corangamite, Lake **34** C1
Corcovado, Gulf of **119** B2
Cordoba, Argentina **119** C3
31° 24′S 64° 11′W
Cordoba, Mexico **110** C2
18° 55′N 96° 55′W
Cordoba, Spain **84** D2
37° 53′N 4° 46′W
Cordova **106** D4
60° 33′N 145° 45′W
Coree, Mount **31** B5
35° 18′S 148° 49′E
Corfu, island **91** H4 *N N*
Corin Dam **31** C3
Corinth **91** I4 *37° 57′N 23° 00′E*
Cork **84** D4 *51° 54′N 8° 30′W*
Corner Brook **107** M2
48° 57′N 57° 56′W
Corner Inlet **35** E1
38° 47′S 146° 20′E
Cornwall **109** G4 *45° 1′N 74° 44′W*
Cornwallis Island **107** I5
Coro **111** F2 *11° 25′N 69° 41′W*
Corocoro **117** C2 *17° 10′S 68° 27′W*
Coromandel Peninsula **65** G6
36° 53′S 175° 27′E
Coronet Peak **31** C3
35° 39′S 148° 51′E
Coropuna, mountain **116** B2
15° 31′S 72° 39′W
Corowa **35** E2 *36° 0′S 146° 23′E*
Corpus Christi **110** C3
27° 45′N 97° 24′W
Corrientes, Cape **110** B3
20° 25′N 105° 41′W
Corrientes, Cape **119** D3
38° 8′S 57° 33′W
Corrientes **119** D4
27° 29′S 58° 49′W
Corrigin **47** C2 *32° 20′S 117° 52′E*
Corryong **35** E2 *36° 12′S 147° 54′E*
Corsica, island **91** F5
Corum **83** B5 *40° 31′N 34° 57′E*
Corumba **117** D2 *19° 1′S 57° 39′W*
Corvallis **108** B4
44° 34′N 123° 17′W
Cosmoledo Atoll, island **101** F4
Costa Rica, republic **113** C8
Cotabato **71** D3 *7° 13′N 124° 15′E*
Cote d'Ivoire, republic **98** C2
Cotonou **100** B5 *6° 24′N 2° 31′E*
Cotopaxi, mountain **116** B3
0° 32′S 78° 27′W
Cottbus **89** I2 *51° 46′N 14° 20′E*
Cotter Dam **31** C5
Cotter River **31** C4
Coulomb Point **47** D5
17° 21′S 122° 9′E
Council Bluffs **109** E4
41° 16′N 95° 52′W
Courtenay **108** B4
49° 41′N 125° 0′W
Coventry **84** D4 *52° 25′N 1° 30′W*
Covilha **90** C5 *40° 17′N 7° 30′W*
Cowan, Lake **47** D2
Cowell **43** F4 *33° 41′S 136° 55′E*
Cowes **35** D1 *38° 27′S 145° 14′E*
Cowra **27** F3 *33° 50′S 148° 42′E*
Cozumel, island **110** D3
20° 27′N 86° 53′W
Cradle Mountain **39** D3
41° 41′S 145° 57′E
Cradle Mountain–Lake St Clair National Park **39** C3
Cradle Valley **39** C3
41° 36′S 145° 57′E
Cradock **101** D1 *32° 12′S 25° 37′E*
Craig **108** D4 *40° 31′N 107° 33′W*
Craiova **85** G3 *44° 20′N 23° 50′E*
Cranbourne **35** D1
38° 7′S 145° 17′E
Cranbrook **108** C4
49° 31′N 115° 46′W
Crato **117** F3 *7° 14′S 39° 25′W*
Cree Lake **107** G3
Crescent City **108** B4
41° 45′N 124° 12′W
Crescent Head **27** H4
31° 11′S 152° 58′E
Cressy **39** E3 *41° 41′S 147° 5′E*
Crestview **110** D4
30° 45′N 86° 34′W
Creswick **34** C2 *37° 25′S 143° 54′E*
Crete, island **87** G2
Crete, Sea of **87** G2
Cretin, Cape **63** F2
6° 40′S 147° 47′E
Crib Point **35** D1
38° 22′S 145° 12′E
Crimea **91** K6
Cristobal Colon, mountain **111** E2
10° 38′N 73° 52′W
Croajingolong National Park **35** F2
Croatia, republic **85** F3
Crockett **110** C4 *31° 9′N 95° 36′W*
Croker Island **62** C1
11° 6′S 132° 32′E
Cromwell **65** C2 *45° 2′S 169° 12′E*
Crooked Island **111** E3
22° 47′N 74° 15′W
Crookwell **27** F2
34° 28′S 149° 28′E
Crotone **91** H4 *39° 5′N 17° 7′E*
Crown Island **63** F2
5° 9′S 146° 55′E
Crozet Island **55** B2
Cruz, Cape **111** E2
19° 51′N 77° 43′W
Cruzeiro do Sul **116** B3
7° 38′S 72° 40′W
Crystal Brook **43** G4
33° 21′S 138° 13′E
Cuamba **101** E3 *14° 47′S 36° 32′E*
Cuando River **101** D3
Cuangar **101** C3 *17° 37′S 18° 37′E*
Cuanza River **101** C3
Cuauhtemoc **110** B3
28° 26′N 106° 52′W
Cuba, republic **103** K4
Cubango River **101** C3
Cucuta **111** E1 *7° 55′N 72° 31′W*
Cuddalore **79** D2
11° 43′N 79° 46′E
Cuenca **116** B3 *2° 54′S 79° 0′W*
Cuencame **110** B3
24° 52′N 103° 42′W
Cuernavaca **110** B2
18° 55′N 99° 14′W
Cuiaba **117** D2 *15° 34′S 56° 5′W*
Culcairn **35** E3 *35° 40′S 147° 2′E*
Culgoa Floodplain National Park **27** E5
Culgoa National Park **27** E5
Culiacan **110** B3
24° 50′N 107° 23′W
Culuene River **117** D2
Cumana **111** F2 *10° 27′N 64° 11′W*
Cumberland Peninsula **107** L4
Cumberland Sound **107** L4
Cummins **43** E3 *34° 16′S 135° 44′E*
Cunene River **100** C3
Cunnamulla **27** D5
28° 4′S 145° 41′E
Curacao, island **115** E8
Curanilahue **119** B3
37° 29′S 73° 20′W
Curico **113** D3 *34° 59′S 71° 14′W*
Curitiba **113** G4 *25° 25′S 49° 19′W*
Curlewis **27** G4 *31° 7′S 150° 16′E*
Currawinya National Park **27** D5
Currie **39** A5 *39° 56′S 143° 51′E*
Curtin Springs **51** C2
25° 17′S 131° 45′E
Curtis Island **39** D5
Cusco **116** B2 *13° 32′S 71° 58′W*
Cuttack **79** D3 *20° 28′N 85° 53′E*
Cuya **119** B5 *19° 7′S 70° 8′W*
Cyclades, island group **83** A4
Cygnet **39** E1 *43° 9′S 147° 4′E*
Cyprus, republic **85** H2
Cyprus, island **87** H2
Czech Republic, republic **85** F3

D

Daan **77** B5 *45° 30′N 124° 18′E*
Dabie Mountains **75** E3
Dadra and Nagar Haveli, state **78** B3
Dadu River **79** F4
Daegu **77** C3 *35° 52′N 128° 36′E*
Daejeon **77** B3 *36° 20′N 127° 25′E*
Dagupan **71** C4 *16° 3′N 120° 20′E*
Dahlak Archipelago **83** C2
Dahuk **80** C3 *36° 52′N 43° 0′E*
Daintree National Park **23** C4
Dajarra **51** G4 *21° 43′S 139° 32′E*
Dakar **98** B3 *14° 43′N 17° 29′W*
Dakhla **98** B4 *23° 43′N 15° 56′W*
Dakuni **61** C2 *18° 25′S 178° 8′E*
Dakuniba **61** D4 *16° 44′S 179° 51′E*
Dalandzadgad **75** E4
43° 35′N 104° 26′E
Da Lat **70** B4 *11° 56′N 108° 25′E*
Dalby **13** F3 *27° 12′S 151° 16′E*
Dali **79** F3 *25° 42′N 100° 11′E*
Dalian **75** G3 *38° 55′N 121° 38′E*
Dallas **110** C4 *32° 49′N 96° 51′W*
Dalmeny **27** G1 *36° 10′S 150° 8′E*
Dalnegorsk **77** D5
44° 32′N 135° 31′E
Dalnerechensk **77** D5
45° 56′N 133° 43′E
Daloa **98** C2 *6° 53′N 6° 27′W*
Dalrymple, Lake **23** C3
Dalrymple, Mount **23** C3
21° 2′S 148° 38′E
Dalwallinu **47** C2
30° 17′S 116° 40′E
Daly River **51** C7
Daly River **62** C1
13° 46′S 130° 43′E
Daly Waters **13** D4
16° 15′S 133° 22′E
Dama **61** C4 *16° 52′S 178° 39′E*
Daman **79** C3 *20° 25′N 72° 51′E*
Daman and Diu, state **78** C3
Damanhur **91** J3 *31° 3′N 30° 28′E*
Damar, island **62** B2
Damar, mountain **71** D2
7° 10′S 128° 35′E
Damascus **83** B4
33° 30′N 36° 18′E
Damavand, Mount **83** D3
35° 57′N 52° 6′E
Dampier **47** C4 *20° 40′S 116° 43′E*
Dampier Peninsula **47** D5
Dampier Strait **62** C3
Danakil Depression, island **97** I6
Da Nang **70** B4 *16° 4′N 108° 15′E*
Danba **79** F4 *30° 57′N 101° 55′E*
Dandong **77** A4 *40° 9′N 124° 23′E*
Dangrek Range **70** B4
Dannevirke **65** G4
40° 13′S 176° 6′E
Danube Delta **91** K5
Danube River **85** G3
Danville **109** G3
36° 35′N 79° 24′W
Daqing **77** B6 *46° 35′N 124° 0′E*
Daqq-E Patergan, lake **83** D4
Dardanelles, channel **83** A5
Dar es Salaam **101** F4
6° 48′S 39° 16′E
Darfield **65** D3 *43° 29′S 172° 7′E*
Dargaville **65** E7
35° 57′S 173° 52′E
Darien, Gulf of **111** E1
Darien National Park **111** E1
Darling River **26** C3

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Darnah **91** **I3** *32°46′N 22°38′E*
Dartmoor **34** **B2** *37°55′S 141°16′E*
Dartmouth, Lake **35** **E2**
Daru **62** **E2** *9°5′S 143°12′E*
Darwin, Mount **119** **B1**
54°45′S 69°9′W
Darwin **51** **C8** *12°27′S 130°50′E*
Dasht-E Kavir **83** **D4**
Dasoguz **83** **D5** *41°50′N 59°58′E*
Datong **75** **F4** *40°5′N 113°18′E*
Datu Peninsula **71** **B3**
Daugavpils **85** **G4**
55°53′N 26°31′E
Dauphin **109** **D5** *51°9′N 100°3′W*
Davangere **79** **C2**
14°28′N 75°55′E
Davao **71** **D3** *7°7′N 125°38′E*
Davenport **109** **E4**
41°33′N 90°35′W
Davenport Range **15** **D3**
David **111** **D1** *8°26′N 82°26′W*
Davis, Antarctic base **55** **D3**
68°35′S 77°58′E
Davis Sea **55** **E3**
Davis Strait **107** **M4**
Dawei **79** **E2** *14°6′N 98°12′E*
Dawmat al Jandal **83** **C3**
29°49′N 39°52′E
Dawson **106** **E4** *64°4′N 139°25′W*
Dawson Creek **106** **F3**
55°46′N 120°14′W
Dawwah **83** **D3** *20°38′N 58°54′E*
Daxue Mountains **79** **F3**
Daylesford **35** **D2**
37°20′S 144°9′E
Dayr az Zawr **83** **C4**
35°20′N 40°8′E
Dayton **109** **F3** *39°45′N 84°12′W*
Daytona Beach **111** **D3**
29°13′N 81°1′W
De Aar **101** **D1** *30°39′S 24°0′E*
Dead Sea **83** **B4**
Deakin, Australian Capital Territory **31** **D5**
35°19′S 149°6′E
Deakin, South Australia **43** **B5**
30°46′S 128°58′E
Deal Island **39** **E5**
Dease Lake **106** **E3**
58°27′N 130°2′W
Death Valley **108** **C3**
Debre Birhan **83** **B1**
9°41′N 39°32′E
Debrecen **85** **G3** *47°32′N 21°38′E*
Debre Markos **101** **E6**
10°20′N 37°43′E
Debundscha **97** **E5** *4°13′N 9°10′E*
Deccan Plateau **74** **C2**
Deep Creek **39** **F4**
40°58′S 148°19′E
Deepwater **27** **G5**
29°26′S 151°51′E
Deering, Mount **47** **E3**
Dehibat **91** **G3** *32°1′N 10°42′E*
Dehra Dun **79** **C4**
30°19′N 78°3′E

Delano **108** **C3** *35°46′N 119°15′W*
Delaware, state **109** **G3**
Delegate **27** **F1** *37°3′S 148°56′E*
Delhi **81** **F2** *28°40′N 77°14′E*
Delhi, state **81** **F2**
Delicias **110** **B3**
28°12′N 105°30′W
Deline **106** **F4** *65°11′N 123°25′W*
Deloraine **39** **D3** *41°31′S 146°39′E*
Del Rio **110** **B3**
29°22′N 100°54′W
Delungra **27** **G5**
29°39′S 150°50′E
Dembi Dolo **83** **B1**
8°32′N 34°48′E
Deming **110** **B4** *32°16′N 107°45′W*
Democratic Republic of the Congo, republic **101** **D4**
Demta **62** **E3** *2°21′S 140°9′E*
Denham **47** **B3** *25°55′S 113°32′E*
Denial Bay **43** **D4**
32°10′S 133°37′E
Deniliquin **35** **D3**
35°32′S 144°58′E
Denizli **85** **G2** *37°46′N 29°5′E*
Denman, New South Wales **27** **G3** *32°23′S 150°41′E*
Denman, South Australia **43** **B5**
30°40′S 129°59′E
Denmark, kingdom **85** **E4**
Denmark Strait **86** **B5**
Denow **78** **B4** *38°17′N 67°53′E*
Denpasar **71** **C2** *8°39′S 115°13′E*
Denton **110** **C4** *33°13′N 97°8′W*
D'Entrecasteaux Channel **39** **E1**
D'Entrecasteaux Islands **63** **G2**
D'Entrecasteaux National Park **47** **C1**
Denver **109** **D3**
39°44′N 104°59′W
Dera Ghazi Khan **78** **C4**
30°4′N 70°38′E
Dera Ismail Khan **81** **F3**
31°50′N 70°54′E
Derbent **83** **C5** *42°3′N 48°17′E*
Derby **47** **D5** *17°19′S 123°38′E*
Derrinallum **34** **C2**
37°57′S 143°13′E
Derwent, River **39** **D2**
Dese **83** **B2** *11°8′N 39°38′E*
Deseado River **119** **C2**
Desembarco del Granma National Park **111** **E2**
Des Moines **109** **E4**
41°35′N 93°37′W
Desna River **89** **M2**
Detroit **109** **F4** *42°20′N 83°5′W*
Deua National Park **35** **F3**
Devils Lake **109** **E4**
48°7′N 98°52′W
Devils Marbles **51** **E4**
20°32′S 134°15′E
Devon Island **107** **J5**
Devonport **39** **D3**
41°11′S 146°21′E
Deyang **79** **F4** *31°8′N 104°24′E*

Dey-Dey, Lake **43** **C6**
Deyong, Cape **62** **D2**
6°57′S 138°41′E
Dezful **83** **C4** *32°23′N 48°28′E*
Dhaba **99** **G4** *27°21′N 35°52′E*
Dhaka **75** **D2** *23°44′N 90°24′E*
Dhamar **83** **C2** *14°33′N 44°23′E*
Dhanbad **79** **D3** *23°48′N 86°25′E*
Dhaulagiri, mountain **79** **D3**
28°42′N 83°30′E
Dhule **79** **C3** *20°54′N 74°46′E*
Di'er Songhua River **77** **B5**
Diamantina National Park **51** **H3**
Diamantina River **51** **H2**
Diamond Head **27** **H4**
31°44′S 152°48′E
Dibrugarh **79** **E3**
27°29′N 94°54′E
Dickinson **109** **D4**
46°53′N 102°47′W
Dickson **93** **H6** *73°30′N 80°33′E*
Dieppe **84** **E3** *49°56′N 1°5′E*
Digul River **62** **E2**
Dijon **85** **E3** *47°20′N 5°2′E*
Dili **62** **B2** *8°34′S 125°35′E*
Dillingham **106** **C3**
59°3′N 158°29′W
Dillon **108** **C4** *45°13′N 112°41′W*
Dilston **39** **D3** *41°20′S 147°4′E*
Dimboola **34** **B2** *36°27′S 142°2′E*
Dimitrovgrad **81** **C5**
54°15′N 49°34′E
Dinaric Alps **87** **F3**
Dindigul **79** **C2** *10°23′N 78°0′E*
Dinosaur Provincial Park **108** **C5**
Diourbel **98** **B3** *14°40′N 16°14′W*
Dire Dawa **83** **C1** *9°35′N 41°52′E*
Dirj **91** **G3** *30°10′N 10°27′E*
Dirk Hartog Island **47** **B3**
Dirranbandi **27** **F5**
28°35′S 148°14′E
Disappointment, Lake **47** **D4**
Disaster Bay **27** **G1**
37°16′S 149°59′E
Discovery Bay **34** **B1**
38°8′S 140°58′E
Discovery Coast Atlantic Forest Reserve **117** **F2**
Diu **78** **C3** *20°43′N 70°59′E*
Diyarbakir **85** **I2** *37°55′N 40°14′E*
Djado **99** **E4** *21°1′N 12°18′E*
Dja Faunal Reserve **100** **C5**
Djanet **99** **D4** *24°33′N 9°29′E*
Dja River **99** **E2**
Djelfa **90** **E3** *34°41′N 3°15′E*
Djenne **94** **D6** *13°54′N 4°33′W*
Djibouti, republic **83** **C2**
11°36′N 43°9′E
Djougou **100** **B5** *9°42′N 1°41′E*
Dmitriy Laptev Strait **93** **O6**
Dnieper Upland **87** **H4**
Dniester River **89** **L1**
Dnipropetrovsk **85** **H3**
48°29′N 34°0′E
Dnipro River **85** **G4**

Doberai Peninsula **62** **C3**
Dobo **62** **C2** *5°47′S 134°12′E*
Dobrich **91** **J5** *43°35′N 27°50′E*
Dodge City **109** **E3**
37°46′N 100°1′W
Dodoma **101** **E4** *6°11′S 35°45′E*
Dogo, island **77** **D3**
36°18′N 133°17′E
Doha **83** **D3** *25°17′N 51°32′E*
Dolbeau **109** **G4**
48°52′N 72°14′W
Dolinsk **77** **F6** *47°21′N 142°48′E*
Dolo Bay **101** **F5** *4°11′N 42°5′E*
Dolores **119** **D3** *36°20′S 57°41′W*
Dom, mountain **62** **D3**
2°43′S 136°53′E
Dome C **57** **F3**
Dome Fuji, Antarctic base **55** **A4** *77°19′S 39°42′E*
Dominica, commonwealth **111** **F2**
Dominican Republic, republic **111** **F3**
Domuyo Volcano, mountain **119** **C3** *36°35′S 70°25′W*
Donald **34** **C2** *36°22′S 142°59′E*
Donana National Park **90** **C4**
Dondo **100** **C4** *9°41′S 14°26′E*
Dondra Head **79** **D1**
5°57′N 80°37′E
Donegal **88** **E2** *54°39′N 8°7′W*
Donetsk **85** **H3** *48°0′N 37°50′E*
Donets River **87** **H3**
Dongara **47** **B3** *29°15′S 114°56′E*
Dong Ha **73** **D4**
Dong Hoi **70** **B4**
17°29′N 106°36′E
Dongola **83** **A2** *19°10′N 30°29′E*
Dong Phayayen-Khao Yai Forest Complex **79** **F2**
Don River **87** **I3**
Doomadgee **51** **G6**
17°57′S 138°50′E
Doongan **47** **E5**
Dora, Lake **47** **D4**
Dorre Island **47** **B3**
Dorrigo **27** **H4** *30°20′S 152°43′E*
Dorrigo National Park **27** **H4**
Dorset and East Devon Coast **88** **F2**
Dortmund **85** **E4** *51°32′N 7°27′E*
Dos Bahias, Cape **119** **C2**
44°59′S 65°37′W
Dothan **111** **D4** *31°13′N 85°23′W*
Douala **100** **C5** *4°4′N 9°42′E*
Doubtful Sound **65** **B2**
45°16′S 166°52′E
Doubtless Bay **65** **E7**
34°55′S 173°27′E
Douglas, Arizona **110** **B4**
31°22′N 109°33′W
Douglas, Georgia **111** **D4**
31°30′N 82°51′W
Douglas, Wyoming **109** **D4**
42°45′N 105°23′W
Douglas–Apsley National Park **39** **F3**

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Douro River **86** **D3**
Dover, Australia **39** **D1**
43°19′S 147°1′E
Dover, United Kingdom **89** **G2**
51°8′N 1°18′E
Dover, United States of America **109** **G3** *39°9′N 75°31′W*
Dozen, island **77** **D3**
36°5′N 133°3′E
Drakensberg Mountains **97** **H2**
Drake Passage **119** **C1**
Drammen **89** **H3** *59°45′N 10°11′E*
Drava River **91** **G6**
Dravuni, island **61** **C2**
18°46′S 178°31′E
Dreketi, lagoon **61** **C4**
Dreketi River **61** **D4**
Dresden **85** **F4** *51°3′N 13°45′E*
Drogheda **88** **E2** *53°43′N 6°21′W*
Drohobych **89** **K1**
49°21′N 23°30′E
Dromedary, Cape **27** **G1**
36°18′S 150°8′E
Drouin **35** **D1** *38°8′S 145°52′E*
Drua, island **61** **D4**
16°12′S 179°37′E
Drummond, Mount **51** **F5**
18°42′S 137°36′E
Druzhnaya 4, Antarctic base **55** **D3** *69°44′S 73°42′E*
Dryden **109** **E4**
49°47′N 92°50′W
Drysdale River **47** **E5**
Drysdale River National Park **51** **A7**
Duarte Peak, mountain **111** **E2**
19°1′N 71°0′W
Dubai **83** **D3** *25°14′N 55°17′E*
Dubawnt Lake **107** **H4**
Dubbo **13** **E2** *32°16′S 148°36′E*
Dublin, Ireland **84** **D4**
53°20′N 6°15′W
Dublin, United States of America **111** **D4**
32°32′N 82°55′W
Dubrovnik **91** **H5** *42°40′N 18°5′E*
Dubuque **109** **E4**
42°30′N 90°40′W
du Couedic, Cape **43** **F2**
36°4′S 136°42′E
Dudinka **93** **I5** *69°25′N 86°14′E*
Dulan **79** **E4** *36°10′N 98°16′E*
Dulcie Ranges National Park **51** **F3**
Duluth **109** **E4** *46°47′N 92°6′W*
Dumaresq River **27** **G5**
Dumfries **88** **F2** *55°4′N 3°33′W*
Dumont d'Urville, Antarctic base **55** **G3** *66°40′S 140°0′E*
Dumyat **91** **K3** *31°25′N 31°49′E*
Dunalley **39** **E2** *42°53′S 147°49′E*
Dundas, Lake **47** **D2**
Dundas Strait **62** **C1**
Dundee **88** **F3** *56°28′N 3°0′W*
Dundo **101** **D4** *7°23′S 20°50′E*
Dund-Us **75** **D4** *48°1′N 91°38′E*
Dunedin **59** **G1** *45°53′S 170°29′E*
Dunedoo **27** **F4** *32°1′S 149°23′E*
Dungog **27** **G3** *32°24′S 151°45′E*
Dunhua **77** **C5** *43°21′N 128°13′E*
Dunhuang **75** **D4**
40°9′N 94°40′E
Dunkeld **34** **C2** *37°39′S 142°21′E*
Dunk Island **23** **C4**
Dunmarra **51** **D6**
16°44′S 133°30′E
Dunolly **34** **C2** *36°52′S 143°44′E*
Duntroon Royal Military College **31** **E5** *35°18′S 149°10′E*
Duoro River **90** **C5**
Durack River **51** **A6**
Durango **110** **B3**
24°2′N 104°40′W
Durban **101** **E2** *29°52′S 30°59′E*
Durmitor National Park **91** **H5**
Durres **85** **F3** *41°19′N 19°27′E*
D'Urville Channel **61** **C2**
D'Urville Island **65** **E4**
Dushanbe **78** **B4**
38°34′N 68°46′E
Dusky Sound **65** **B2**
45°47′S 166°27′E
Dusseldorf **85** **E4** *51°13′N 6°47′E*
Duyfken Point **23** **B5**
12°34′S 141°36′E
Dyatkovo **89** **M2**
53°35′N 34°20′E
Dysart **23** **C3** *22°35′S 148°21′E*
Dzerzhinsk **92** **E4**
56°15′N 43°28′E
Dzhankoy **91** **K6**
45°43′N 34°24′E
Dzhugdzhur Range **93** **N4**
Dzuunharaa **75** **E4**
48°52′N 106°28′E

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Eaglehawk Neck **39** **F1**
43°1′S 147°55′E
Eagle Pass **110** **C3**
28°43′N 100°29′W
Eagle Point **63** **F1**
10°33′S 149°58′E
East Antarctica **57** **E4**
East Cape **65** **H6**
37°41′S 178°33′E
East China Sea **77** **B1**
Eastern **61** **C2**
Eastern Desert **83** **B3**
Eastern Ghats **79** **D2**
Eastern Sierra Madre **110** **B3**
East Falkland, island **119** **D1**
East Korea Bay **77** **C4**
East London **101** **D1**
32°58′S 27°52′E
Eastmain **109** **G5**
52°14′N 78°31′W
Eastmain River **107** **K3**
East Rennell **63** **I1**
East Sepik **63** **E3**
East Siberian Sea **69** **J6**
East Timor **13** **C5**
Eau Claire **109** **E4**
44°49′N 91°30′W
Ebro River **86** **D3**
Echo, Lake **39** **D2**
Echuca **35** **D2** *36°8′S 144°45′E*
Ecosystem and Relict Cultural Landscape of Lopé-Okanda **99** **E1**
Ecuador, republic **113** **D6**
Ed Damazin **83** **B2**
11°46′N 34°21′E
Ed Damer **83** **B2** *17°35′N 33°58′E*
Ed Dueim **83** **B2** *13°59′N 32°18′E*
Eddystone Point **39** **F3**
41°0′S 148°21′E
Eden **35** **F2** *37°4′S 149°54′E*
Edenhope **34** **B2** *37°2′S 141°18′E*
Edgeoya, island **93** **C6**
Edinburg **110** **C3**
26°18′N 98°10′W
Edinburgh **84** **D4**
55°57′N 3°13′W
Edirne **83** **A5** *41°40′N 26°34′E*
Edmonton **108** **C5**
53°33′N 113°30′W
Edmundston **109** **H4**
47°23′N 68°20′W
Edward, Lake **101** **D4**
Edwards Plateau **105** **J5**
Edward VIII Bay **57** **C3**
Efate, island **59** **F4**
Egersund **89** **H3** *58°30′N 5°59′E*
Egerton, Mount **47** **C4**
24°46′S 117°43′E
Egilsstadir **88** **C5**
65°16′N 14°24′W
Egmont (Taranaki), Mount **65** **E5** *39°18′S 174°4′E*
Egmont, Cape **65** **E5**
39°17′S 173°46′E
Egvekinot **93** **S5**
66°19′N 179°11′W
Egypt, republic **91** **J2**
Eiao, island **59** **K5**
Eighty Mile Beach **47** **D5**
19°40′S 120°53′E
Eildon, Lake **35** **E2**
Eildon **35** **D2** *37°14′S 145°55′E*
Eindhoven **89** **H2** *51°26′N 5°30′E*
Eirunepe **117** **C3** *6°40′S 69°52′W*
Ekibastuz **74** **B5** *51°44′N 75°19′E*
Ekonda **93** **K5** *65°45′N 104°13′E*
Ekstrom Ice Shelf **57** **Q3**
Ekubu **61** **B2** *18°31′S 177°39′E*
El Alamein **83** **A4**
30°49′N 28°57′E
El Arish **91** **K3** *31°7′N 33°48′E*
Elazig **85** **H2** *38°41′N 39°14′E*
Elba **87** **F3**
El Banco **111** **E1** *9°0′N 73°59′W*
Elbasan **91** **I5** *41°7′N 20°5′E*
El Bayadh **90** **E3** *33°41′N 1°1′E*
Elbe River **85** **F4**
Elbert, Mount **109** **D3**
39°8′N 106°27′W
Elblag **89** **J2** *54°11′N 19°24′E*
Elbrus, Mount **87** **I3**
43°21′N 42°26′E
Elburz Mountains **83** **D4**
El Calafate **119** **B1**
50°20′S 72°18′W
El Centro **110** **A4**
32°48′N 115°33′W
El Daba **91** **J3** *31°2′N 28°26′E*
Eldon Peak **39** **C3**
41°58′S 145°44′E
El Dorado **110** **C4**
33°13′N 92°40′W
Eldoret **101** **E5** *0°31′N 35°16′E*
Eleuthera, island **111** **E3**
25°15′N 76°18′W
El Faiyum **83** **A3**
29°19′N 30°50′E
El Fasher **99** **F3** *13°38′N 25°21′E*
El Fuerte **110** **B3**
26°25′N 108°37′W
El Golea **90** **E3** *30°34′N 2°53′E*
Elgon, Mount **101** **E5**
1°8′N 34°33′E
Elista **92** **E3** *46°20′N 44°13′E*
Elizabeth No 2, Mount **35** **F2**
37°29′S 147°56′E
El Jadida **90** **C3** *33°16′N 8°31′W*
Elk **89** **K2** *53°50′N 22°21′E*
El Kef **91** **F4** *36°11′N 8°43′E*
El Kharga **91** **K2** *25°26′N 30°33′E*
Elko **108** **C4** *40°50′N 115°46′W*
Ellesmere Island **107** **J5**
Elliott **51** **D6** *17°33′S 133°32′E*
Elliott Bay **39** **C1**
42°59′S 145°34′E
Elliott, Mount **47** **E4**
20°29′S 126°37′E
Elliston **43** **E4** *33°39′S 134°53′E*
Ellsworth Land **57** **N3**
El Mansura **91** **K3** *31°3′N 31°23′E*
El Minya **83** **A3** *28°5′N 30°45′E*
Elmore **35** **D2** *36°30′S 144°37′E*
El Obeid **83** **B2** *13°11′N 30°13′E*
El Oued **91** **F3** *33°22′N 6°52′E*
El Paso **110** **B4** *31°47′N 106°31′W*
El Pinacate and Gran Desierto de Altar Biosphere Reserve **110** **A4**
El Qasr **83** **A3** *25°42′N 28°53′E*
El Salvador, republic **110** **D2**
El Tigre **111** **F1** *8°53′N 64°16′W*
El Tur **83** **B3** *28°14′N 33°37′E*
Ely, Minnesota **109** **E4**
47°54′N 91°50′W
Ely, Nevada **108** **C3**
39°15′N 114°53′W
Emas National Park **117** **D2**
Embi **81** **D4** *48°50′N 58°9′E*
Emden **89** **H2** *53°22′N 7°13′E*
Emerald, Queensland **13** **E3**
23°31′S 148°10′E
Emerald, Victoria **35** **D2**
37°56′S 145°26′E
Emeti **62** **E2** *7°49′S 143°13′E*
Emi Koussi, mountain **99** **E3**
19°48′N 18°33′E

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Emirau Island **63** **G3**
1°42′S 150°1′E
Emporia **109** **E3** *38°24′N 96°11′W*
Empress Augusta Bay **63** **G2**
Encarnacion **119** **D4**
27°21′S 55°52′W
Encounter Bay **43** **G3**
35°34′S 138°45′E
Ende **71** **D2** *8°52′S 121°39′E*
Endeavour Strait **23** **B5**
Enderbury, island **59** **I5**
Enderby Land **57** **C3**
Eneabba **47** **B3** *29°49′S 115°16′E*
Enga **62** **E2**
Engano, Cape **75** **G1**
18°35′N 122°8′E
Engels **81** **C5** *51°30′N 46°7′E*
Enggano, island **70** **B2**
English Channel **84** **D4**
English Coast **57** **N3**
Enid **109** **E3** *36°24′N 97°53′W*
Eniwetok, island **59** **F7**
Ennadai **107** **I4** *61°8′N 100°53′W*
Ennedi Massif: Natural and Cultural Landscape **99** **F3**
Ennedi Plateau **99** **F3**
Ensenada **108** **C3**
31°52′N 116°37′W
Enterprise **111** **D4**
31°20′N 85°51′W
Enugu **100** **B5** *6°27′N 7°30′E*
Enurmino **93** **S5**
66°57′N 171°49′W
Eppalock, Lake **35** **D2**
Equatorial Guinea, republic **100** **B5**
Erave **63** **E2** *6°36′S 143°54′E*
Erdao River **77** **B5**
Eregli **83** **B4** *37°30′N 34°3′E*
Erenhot **75** **F4** *43°40′N 111°58′E*
Erfurt **89** **I2** *50°58′N 11°2′E*
Erie, Lake **109** **F4**
Erie **109** **G4** *42°8′N 80°5′W*
Erimo, Cape **77** **F4**
41°58′N 143°14′E
Eritrea, republic **83** **B2**
Erldunda Roadhouse **51** **D2**
25°10′S 133°10′E
Ermera **62** **B2** *8°45′S 125°24′E*
Ermoupoli **91** **J4** *37°27′N 24°56′E*
Er Rachidia **90** **D3**
31°56′N 4°27′W
Er Rif, range **90** **D3**
Errinundra National Park **35** **F2**
Ertis **81** **F5** *53°21′N 75°27′E*
Ertis River **74** **C5**
Erymentau **92** **H4** *51°38′N 73°6′E*
Erzgebirge, range **91** **G7**
Erzincan **83** **B4** *39°45′N 39°30′E*
Erzurum **85** **I2** *39°55′N 41°17′E*
Esaala **63** **G2** *9°45′S 150°49′E*
Esashi **77** **F5** *44°57′N 142°34′E*
Esbjerg **89** **H3** *55°28′N 8°27′E*
Escuinapa **110** **B3**
22°51′N 105°48′W
Escuintla **110** **C2**
14°18′N 90°47′W
Esik **74** **B4** *43°22′N 77°27′E*
Esil **81** **E5** *51°57′N 66°23′E*
Eskisehir **85** **H2** *39°48′N 30°32′E*
Esmeraldas **116** **A4**
0°56′N 79°40′W
Esperance **47** **D2**
33°52′S 121°53′E
Esperance Bay **47** **D2**
Esperanza, Antarctic base **55** **P3** *63°24′S 57°0′W*
Esperanza, Mexico **110** **B3**
27°35′N 109°56′W
Espiritu Santo, island **59** **F4**
Espungabera **101** **E2**
20°27′S 32°46′E
Esquel **119** **B2** *42°54′S 71°19′W*
Essen **85** **E4** *51°27′N 7°1′E*
Essendon, Mount **47** **D3**
25°0′S 120°29′E
Estonia, republic **85** **G4**
Ethiopia, republic **83** **B2**
Ethiopian Highlands **101** **E6**
Etna, Mount **87** **F2**
37°45′N 15°0′E
Etosha Pan **101** **C3**
Eucla **43** **B5** *31°41′S 128°53′E*
Eucla National Park **43** **B5**
Eucumbene, Lake **35** **F2**
Eugene **108** **B4** *44°3′N 123°6′W*
Eugenia, Point **110** **A3**
27°52′N 115°5′W
Eumseong **77** **C3**
36°56′N 127°41′E
Euphrates River **83** **C4**
Eureka **108** **B4** *40°48′N 124°9′W*
Euroa **35** **D2** *36°45′S 145°34′E*
Europa Island **101** **E2**
Europe, continent **87** **F4**
Euston **34** **C3** *34°34′S 142°45′E*
Eva Downs **51** **E6**
18°0′S 134°52′E
Evandale **39** **E3** *41°34′S 147°15′E*
Evans Head **27** **H5**
29°7′S 153°26′E
Evansville **109** **F3**
37°58′N 87°33′W
Evatt **31** **D5** *35°13′S 149°4′E*
Evelyn, Mount **51** **D8**
13°36′S 132°54′E
Everard, Lake **43** **E5**
Everest, Mount **79** **D3**
27°59′N 86°56′E
Everett **108** **B4** *47°58′N 122°12′W*
Everglades National Park **111** **D3**
Exeter, Australia **39** **D3**
41°18′S 146°57′E
Exeter, United Kingdom **88** **F2**
50°42′N 3°32′W
Exmouth **12** **B3** *21°56′S 114°7′E*
Exmouth Gulf **47** **B4**
22°11′S 114°15′E
Expedition National Park **23** **C2**
Eyasi, Lake **101** **E4**
Eyl **101** **G5** *7°59′N 49°50′E*
Eyre **47** **E2**
Eyre, Lake **13** **D3**
Eyre Creek **51** **G1**
Eyre North, Lake **23** **A2**
Eyre Peninsula **43** **E4**
Eyre South, Lake **15** **D3**

F

Fada **99** **F3** *17°11′N 21°35′E*
Faeroe Islands **86** **D5**
Fairbanks **106** **D4**
64°50′N 147°43′W
Fairweather, Mount **106** **E3**
58°54′N 137°32′W
Faisalabad **81** **F3** *31°25′N 73°7′E*
Faizabad **74** **C2** *26°45′N 82°10′E*
Fakfak **62** **C3** *2°55′S 132°18′E*
Falcon Lake **110** **C3**
Falfurrias **110** **C3** *27°14′N 98°9′W*
Falkland Islands **119** **D1**
Falls Creek **35** **E2**
36°52′S 147°17′E
False Cape **62** **D2**
8°21′S 137°44′E
Farafangana **101** **F2**
22°49′S 47°50′E
Farah **78** **B4** *32°24′N 62°6′E*
Farasan Islands, island group **99** **H3**
Farewell, Cape **65** **E4**
40°30′S 172°42′E
Farewell, Cape **107** **N3**
59°52′N 43°54′W
Farewell Spit **65** **E4**
40°31′S 172°51′E
Fargo **109** **E4** *46°53′N 96°47′W*
Fargona **74** **B4** *40°23′N 71°47′E*
Faro **90** **C4** *37°1′N 7°56′W*
Farquhar Atoll, island **101** **G3**
Farquharson, Mount **51** **C6**
17°53′S 130°6′E
Fasa **83** **D3** *28°58′N 53°40′E*
Fatehpur **79** **D3**
25°53′N 80°48′E
Fatuhiva **59** **L4**
Faya Largeau **99** **F3**
17°55′N 19°7′E
Fayetteville **109** **G3**
35°4′N 78°53′W
Fear, Cape **111** **E4**
33°52′N 77°59′W
Feathertop, Mount **35** **E2**
36°54′S 147°8′E
Federated States of Micronesia **71** **E3**
Feilding **65** **F4** *40°13′S 175°33′E*
Feira de Santana **113** **H5**
12°15′S 38°58′W
Felipe Carrillo Puerto **110** **D2**
19°35′N 88°3′W
Feni Islands **63** **G3**
Ferfer **101** **F5** *5°5′N 45°10′E*
Fergusson Island **63** **G2**
9°32′S 150°42′E
Fernando de Noronha and Atol das Rocas Reserves **117** **F3**
Ferrara **91** **G5** *44°51′N 11°37′E*
Feyzabad **78** **C4** *37°8′N 70°35′E*
Fez **90** **D3** *34°3′N 5°0′W*
Fianarantsoa **101** **F2**
21°26′S 47°5′E
Fiji, republic **61** **C3**
Filchner Ice Sheet **57** **P3**
Fingal **39** **F3** *41°38′S 147°58′E*
Finisterre, Cape **86** **C3**
42°57′N 9°16′W
Finke **13** **D3** *25°35′S 134°35′E*
Finke Gorge National Park **51** **D2**
Finke River **43** **E8**
Finland, Gulf of **85** **G4**
Finland, republic **85** **G5**
Finley **35** **D3** *35°39′S 145°35′E*
Finnish Lake Region **87** **G5**
Finnmarksvidda, plateau **89** **L5**
Finnsnes **89** **J5** *69°14′N 18°1′E*
Finschhafen **63** **F2**
6°36′S 147°51′E
Fiordland **65** **B2**
Firozabad **79** **C3** *27°36′N 78°3′E*
Fitzgerald River National Park **47** **D2**
Fitzroy Crossing **47** **E5**
18°12′S 125°34′E
Fitzroy, Mount **119** **B2**
49°16′S 73°3′W
Fitzroy River **15** **C4**
Flagstaff **108** **C3**
35°12′N 111°39′W
Flamingo Bay **62** **D2**
Flathead Lake **108** **C4**
Flattery, Cape **106** **F2**
Flensburg **89** **H2** *54°47′N 9°26′E*
Flinders Bay **47** **B2**
Flinders Chase National Park **43** **F3**
Flinders Island **39** **F5**
Flinders Ranges **15** **D2**
Flinders River **23** **B4**
Flin Flon **107** **H3**
54°46′N 101°53′W
Flint **109** **F4** *43°1′N 83°41′W*
Florence, Alabama **109** **F3**
34°48′N 87°41′W
Florence, Italy **85** **F3**
43°47′N 11°15′E
Florence, South Carolina **111** **D4**
34°12′N 79°46′W
Florencia **116** **B4** *1°37′N 75°37′W*
Flores **110** **D2** *16°56′N 89°53′W*
Flores, island **71** **D2**
Flores Sea **71** **D2**
Floriano **117** **E3** *6°46′S 43°2′W*
Florianopolis **119** **E4**
27°35′S 48°31′W
Florida, state **111** **D3**
Florida, Straits of **111** **D3**
Florida Islands **63** **I2**
Florida Keys, island group **109** **F2**
Fluk **62** **B3** *1°41′S 127°45′E*
Fly River **62** **E2**

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Focsani **91** **J6** *45°42'N 27°11'E*
Foggia **91** **H5** *41°28'N 15°34'E*
Fonseca, Gulf of **110** **D2**
Fonte Boa **117** **C3** *2°31's 66°5'W*
Forbes **27** **E3** *33°23's 148°0'E*
Forbes Creek **31** **F4** *35°26's 149°30'E*
Ford, Cape **15** **C4** *13°26's 129°52'E*
Ford Range **57** **K3**
Forel, Mount **107** **O4** *66°56'N 36°47'W*
Forestier, Cape **39** **F2** *42°11's 148°21'E*
Formosa **113** **F4** *26°10's 58°11'W*
Forrest **34** **C1** *38°31's 143°43'E*
Forster **27** **H3** *32°11's 152°31'E*
Fortaleza **117** **F3** *3°45's 38°35'W*
Fort Collins **109** **D4** *40°34'N 105°4'W*
Fort-de-France **111** **F2** *14°37'N 61°5'W*
Fort Dodge **109** **E4** *42°30'N 94°11'W*
Fortescue River **12** **B3**
Fort Good Hope **106** **F4** *66°16'N 128°38'W*
Forth, River **39** **D3**
Fort Lauderdale **111** **E3** *26°8'N 80°9'W*
Fort McMurray **107** **H3** *56°44'N 111°23'W*
Fort Myers **111** **D3** *26°38'N 81°52'W*
Fort Nelson **106** **F3** *58°49'N 122°32'W*
Fort Pierce **111** **E3** *27°27'N 80°20'W*
Fort Resolution **107** **G4** *61°10'N 113°41'W*
Fort Severn **107** **J3** *55°59'N 87°39'W*
Fort Shevchenko **92** **F3** *44°31'N 50°16'E*
Fort Simpson **106** **F4** *61°51'N 121°20'W*
Fort St John **106** **G3** *56°15'N 120°50'W*
Fort Stockton **110** **B4** *30°54'N 102°53'W*
Fort Wayne **109** **F4** *41°5'N 85°8'W*
Fort William **88** **E3** *56°49'N 5°7'W*
Fort Worth **110** **C4** *32°44'N 97°20'W*
Fort Yukon **106** **D4** *66°34'N 145°16'W*
Foster **35** **E1** *38°39's 146°12'E*
Foul Bay **83** **B3**
Foulwind, Cape **65** **D4** *41°45's 171°28'E*
Foumban **100** **C5** *5°44'N 10°54'E*
Fourcroy, Cape **62** **B1** *11°48's 129°58'E*
Fouta Djallon **98** **B3**

Foveaux Strait **65** **C1** *46°43's 168°1'E*
Fowlers Bay **43** **D4**
Fowlers Bay **43** **D5** *31°59's 132°22'E*
Fox Bay West **119** **C1** *51°57's 60°5'W*
Foxe Basin **107** **K4**
Foxe Peninsula **107** **K4**
Fox Glacier **65** **C3** *43°28's 170°1'E*
Foxlow, Mount **31** **F3** *35°33's 149°24'E*
Foxton **65** **F4** *40°28's 175°17'E*
Foz do Iguacu **117** **D1** *25°31's 54°32'W*
Franca **117** **E1** *20°32's 47°23'W*
France, republic **85** **E3**
Franceville **100** **C4** *1°38's 13°35'E*
Francistown **101** **D2** *21°10's 27°30'E*
Francois Peron National Park **47** **B3**
Frankfort **109** **F3** *38°12'N 84°52'W*
Frankfurt **89** **H2** *50°6'N 8°41'E*
Franklin **39** **D1** *43°5's 147°1'E*
Franklin, Mount **31** **B4** *35°29's 148°47'E*
Franklin–Gordon Wild Rivers National Park **39** **C2**
Franklin River **39** **C2**
Frankston **35** **D1** *38°9's 145°7'E*
Franz Josef Glacier **65** **C3** *43°28's 170°12'E*
Franz Josef Land **69** **E6**
Fraser Island **13** **F3**
Fredericton **107** **L2** *45°57'N 66°38'W*
Frederikshavn **89** **I3** *57°26'N 10°32'E*
Freeling, Mount **51** **D3** *22°35's 133°6'E*
Freeling Heights **43** **G6** *30°9's 139°23'E*
Freeport **110** **C3** *28°58'N 95°21'W*
Freetown **98** **B2** *8°28'N 13°14'W*
Freiburg **91** **F6** *48°0'N 7°52'E*
Fremantle **47** **C2** *32°3's 115°45'E*
French Guiana, dependency **117** **D4**
French Island **35** **D1**
Frenchmans Cap **39** **C2** *42°16's 145°50'E*
French Polynesia, dependency **59** **K3**
Fresnillo **110** **B3** *23°10'N 102°52'W*
Fresno **108** **B3** *36°45'N 119°46'W*
Freycinet National Park **39** **F2**
Fria, Cape **97** **F3** *18°27's 12°1'E*
Frio, Cape **117** **E1** *22°52's 41°58'W*
Frisian Islands, island group **89** **H2**

Frobisher Bay **107** **L4**
Frolovo **80** **C4** *49°46'N 43°39'E*
Frome, Lake **43** **H5**
Fuerte Olimpo **117** **D1** *21°4's 57°54'W*
Fuerteventura, island **98** **B4**
Fuji, Mount **77** **E3** *35°21'N 138°44'E*
Fujian, state **75** **F2**
Fujin **77** **D6** *47°16'N 132°1'E*
Fukue Island **77** **C2** *32°41'N 128°44'E*
Fukui **77** **D3** *36°4'N 136°13'E*
Fukuoka **77** **C2** *33°36'N 130°24'E*
Fukushima **77** **F3** *37°44'N 140°28'E*
Fulin **79** **F3** *29°21'N 102°43'E*
Funafuti **59** **G5** *8°31's 179°13'E*
Funchal **98** **B5** *32°39'N 16°53'W*
Fundy, Bay of **109** **H4**
Funtua **100** **B6** *11°31'N 7°19'E*
Furneaux Group, island group **39** **E5**
Furukawa **77** **F4** *38°37'N 140°56'E*
Fushun **77** **B4** *41°52'N 123°52'E*
Futuna, island **59** **H4**
Fuxin **75** **G4** *42°1'N 121°39'E*
Fuyu **77** **B5** *45°11'N 124°49'E*
Fuyun **75** **C4** *47°0'N 89°28'E*
Fuzhou **75** **G2** *26°5'N 119°18'E*
Fyshwick **31** **E5** *35°19's 149°10'E*

G

Gaalkacyo **101** **F5** *6°46'N 47°26'E*
Gabes **91** **G3** *33°54'N 10°6'E*
Gabes, Gulf of **99** **E5**
Gabon, republic **100** **C4**
Gaborone **101** **D2** *24°39's 25°55'E*
Gabriel de Castilla, Antarctic base **55** **O2** *62°58's 60°41'W*
Gadsden **110** **D4** *34°1'N 86°0'W*
Gafsa **91** **F3** *34°25'N 8°47'E*
Gagnoa **98** **C2** *6°9'N 5°53'W*
Gainesville **111** **D3** *29°39'N 82°20'W*
Gairdner, Lake **43** **F5**
Galati **91** **J6** *45°27'N 28°3'E*
Galdhopiggen, mountain **89** **H4** *61°38'N 8°19'E*
Galera, Point **116** **A4** *0°44'N 80°4'W*
Galeras Volcano **116** **B4** *1°13'N 77°27'W*
Galilee, Lake **23** **C3**
Galiwinku **51** **E9** *12°2's 135°34'E*
Galle **79** **C1** *6°2'N 80°14'E*
Gallinas, Point **111** **E2** *12°27'N 71°40'W*
Gallipoli **83** **A5**
Gallup **108** **D3** *35°31'N 108°44'W*
Galoa **61** **B2** *18°15's 178°1'E*
Galveston **110** **C3** *29°18'N 94°48'W*

Galway **88** **E2** *53°16'N 9°3'W*
Gambia, republic **98** **B3**
Gambia River **98** **B3**
Gamboma **101** **C4** *1°53's 15°51'E*
Ganca **92** **E3** *40°41'N 46°21'E*
Gandhinagar **79** **C3** *23°18'N 72°38'E*
Ganges River **79** **D3**
Gangneung **77** **C3** *37°45'N 128°54'E*
Gangtok **79** **D3** *27°20'N 88°37'E*
Gannan **77** **A6** *47°55'N 123°31'E*
Gannett Peak **108** **D4** *43°7'N 109°39'W*
Gan River **75** **F2**
Gansu, state **79** **F4**
Ganzhou **75** **F2** *25°55'N 114°57'E*
Gapuwiyak **62** **D1** *12°24's 135°42'E*
Gar **79** **C4** *32°12'N 79°59'E*
Garabogaz Bay **81** **D4**
Garajonay National Park **98** **B4**
Garamba National Park **99** **F2**
Garanhuns **117** **F3** *8°53's 36°30'W*
Garca **117** **E1** *22°13's 49°40'W*
Garden City **109** **D3** *37°59'N 100°52'W*
Gardiner, Mount **51** **D3** *22°10's 132°39'E*
Gardiz **78** **B4**
Gardner Pinnacles, island group **59** **H8**
Garig Gunak Barlu National Park **51** **C9**
Garissa **101** **F4** *0°26's 39°40'E*
Garonne River **86** **D3**
Garoowe **101** **F5** *8°24'N 48°30'E*
Garoua **100** **C5** *9°18'N 13°23'E*
Garuahi **63** **G1** *10°13's 150°25'E*
Gary **109** **F4** *41°35'N 87°20'W*
Gascoyne Junction **47** **C4** *25°3's 115°13'E*
Gascoyne River **47** **C4**
Gaspe **109** **H4** *48°50'N 64°30'W*
Gastre **119** **C2** *42°17's 69°14'W*
Gatchina **89** **L3** *59°34'N 30°8'E*
Gatton **23** **D2** *27°34's 152°17'E*
Gau, island **61** **D2** *18°1's 179°19'E*
Gavle **89** **J4** *60°40'N 17°10'E*
Gawler **13** **D2** *34°36's 138°44'E*
Gawler Ranges National Park **43** **E4**
Gaxun Nur **75** **D4**
Gaya **79** **D3** *24°48'N 85°0'E*
Gayndah **23** **D2** *25°38's 151°37'E*
Gaza **83** **B4** *31°32'N 34°27'E*
Gaziantep **85** **H2** *37°5'N 37°23'E*
Gbadolite **101** **D5** *4°17'N 21°1'E*
Gdansk **85** **F4** *54°22'N 18°38'E*
Gdynia **89** **J2** *54°31'N 18°32'E*
Gearys Gap **31** **F6** *35°6's 149°22'E*
Gebe, island **62** **B3** *0°7's 129°31'E*

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Gedaref **83** **B2** *14°2′N 35°23′E*
Geelong **13** **E2** *38°10′S 144°24′E*
Geeveston **39** **D1** *43°10′S 146°56′E*
Gejiu **79** **F3** *23°23′N 103°9′E*
Geladaindong, mountain **79** **D4** *33°25′N 91°5′E*
Gelendzhik **91** **L5** *44°34′N 38°4′E*
Gemena **101** **D5** *3°16′N 19°46′E*
Geneina **99** **F3** *13°27′N 22°26′E*
General Pico **119** **C3** *35°40′S 63°46′W*
General Roca **119** **C3** *39°1′S 67°37′W*
General Santos **71** **D3** *6°7′N 125°10′E*
Geneva **85** **E3** *46°13′N 6°8′E*
Genoa **85** **E3** *44°25′N 8°56′E*
Gent **89** **G2** *51°2′N 3°42′E*
Geographe Bay **47** **B2**
George **101** **D1** *33°57′S 22°27′E*
George, Lake **31** **F6**
George River **107** **L3**
Georgetown, Australia **13** **E4** *18°18′S 143°32′E*
Georgetown, Guyana **117** **D4** *6°48′N 58°10′W*
George Town, Australia **39** **D3** *41°6′S 146°50′E*
George Town, Malaysia **79** **E1** *5°25′N 100°20′E*
George Town, United Kingdom **111** **D2** *19°17′N 81°20′W*
Georgia, republic **85** **I3**
Georgia, state **111** **D4**
Georgian Bay **109** **F4**
Georgievsk **80** **C4** *44°10′N 43°28′E*
Georgina **51** **F4** *21°7′S 137°39′E*
Georgina River **51** **F4**
Gera **89** **I2** *50°52′N 12°4′E*
Geraldine, New Zealand **65** **D2** *44°4′S 171°14′E*
Geraldton, Australia **47** **B3** *28°47′S 114°37′E*
Geraldton, Canada **109** **F4** *49°43′N 86°58′W*
Germany, republic **85** **E4**
Gerogian Bay **107** **J2**
Getz Ice Shelf **57** **M3**
Ghadamis **91** **G3** *30°8′N 9°30′E*
Ghaghe, island **63** **H2** *7°29′S 158°22′E*
Ghana, republic **98** **C2**
Ghanzi **101** **D2** *21°42′S 21°38′E*
Ghardaia **90** **E3** *32°29′N 3°40′E*
Gharyan **91** **G3** *32°10′N 13°1′E*
Ghat **99** **E4** *24°58′N 10°10′E*
Ghaziabad **79** **C3** *28°40′N 77°24′E*
Ghazni **78** **B4** *33°34′N 68°25′E*
Gibraltar **90** **D4** *36°8′N 5°23′W*
Gibraltar Falls **31** **C4**
Gibraltar Peak **31** **C4** *35°28′S 148°57′E*
Gibraltar Range National Park **27** **H5**
Gibraltar, Strait of **86** **D2**
Gibson Desert **51** **A3**
Giessen **89** **H2** *50°35′N 8°39′E*
Gifu **77** **E3** *35°25′N 136°46′E*
Gijon **84** **D3** *43°32′N 5°40′W*
Gilan **81** **C2**
Gila River **110** **B4**
Gilgandra **27** **F4** *31°43′S 148°40′E*
Gilgit **79** **C4** *35°55′N 74°18′E*
Gillam **107** **I3** *56°21′N 94°42′W*
Gilles, Lake **43** **F4**
Gillette **109** **D4** *44°17′N 105°30′W*
Gimbi **83** **B1** *9°10′N 35°50′E*
Gingera, Mount **31** **B3** *35°35′S 148°47′E*
Gingoog **71** **D3** *8°50′N 125°8′E*
Ginini, Mount **31** **B3** *35°32′S 148°46′E*
Ginini Falls **31** **B4**
Ginninderra, Lake **31** **D5**
Ginninderra **31** **D5** *35°12′S 149°5′E*
Ginninderra Falls **31** **C5**
Ginns Gap **31** **E5** *35°12′S 149°12′E*
Gippsland **35** **E2**
Girga **83** **B3** *26°20′N 31°53′E*
Girgir, Cape **63** **E3** *3°50′S 144°30′E*
Gisborne, Australia **35** **D2** *37°29′S 144°36′E*
Gisborne, New Zealand **65** **G5** *38°39′S 178°1′E*
Gitega **101** **E4** *3°26′S 29°51′E*
Giyon **83** **B1** *8°32′N 37°58′E*
Giza **83** **B3** *29°58′N 31°7′E*
Gizo **63** **H2** *8°6′S 156°50′E*
Gjoa Haven **107** **I4** *68°38′N 95°55′W*
Gjovik **89** **I4** *60°48′N 10°42′E*
Gladstone, Queensland **13** **F3** *23°51′S 151°15′E*
Gladstone, South Australia **43** **G4** *33°16′S 138°21′E*
Glasgow, United Kingdom **84** **D4** *55°53′N 4°15′W*
Glasgow, United States of America **109** **D4** *48°11′N 106°38′W*
Glazov **92** **F4** *58°7′N 52°38′E*
Glendale **108** **C3** *33°35′N 112°12′W*
Glendive **109** **D4** *47°7′N 104°43′W*
Glenelg River **34** **B2**
Glen Innes **27** **G5** *29°44′S 151°44′E*
Glenmaggie, Lake **35** **E2**
Glenorchy **39** **E2** *42°50′S 147°16′E*
Glenreagh **27** **H4** *30°3′S 152°59′E*
Glenrowan **35** **E2** *36°28′S 146°13′E*
Gliwice **89** **J2** *50°20′N 18°40′E*
Gloucester, Cape **63** **F2** *5°31′S 148°27′E*
Gloucester **27** **G4** *32°0′S 151°58′E*
Glyde River **51** **E8**
Gnowangerup **47** **C2** *33°56′S 119°1′E*
Goa, state **79** **C2**
Gobi Desert **75** **E4**
Godavari River **79** **C2**
Gode **101** **F5** *5°57′N 43°27′E*
God's Lake **107** **I3**
Goiania **117** **E2** *16°43′S 49°18′W*
Gold Coast **13** **F3** *28°5′S 153°27′E*
Gold Creek Homestead **31** **D6** *35°10′S 149°6′E*
Golden Bay **65** **E4** *40°42′S 172°52′E*
Golden Mountains of Altai **75** **D5**
Goldfields Woodlands National Park **47** **D2**
Golmud **79** **E4** *36°25′N 94°53′E*
Goma **101** **D4** *1°41′S 29°13′E*
Gombe **100** **C6** *10°17′N 11°10′E*
Gomez Palacio **110** **B3** *25°34′N 103°30′W*
Gomogomo **62** **D2** *6°38′S 134°42′E*
Gonaives **111** **E2** *19°27′N 72°41′W*
Gonbad-e Kavus **83** **D4** *37°15′N 55°10′E*
Gonder **83** **B2** *12°37′N 37°28′E*
Gondwana, Antarctic base **55** **J3** *73°37′S 164°12′E*
Gongga Shan, mountain **79** **F3** *29°36′N 101°53′E*
Gongzhuling **77** **B5** *43°25′N 124°48′E*
Gonzalez Videla, Antarctic base **55** **O3** *64°49′S 62°52′W*
Goobang National Park **27** **F3**
Goodenough Island **63** **G2** *9°17′S 150°13′E*
Good Hope, Cape of **101** **C1** *34°18′S 18°26′E*
Goodland **109** **D3** *39°21′N 101°43′W*
Goodooga **27** **E5** *29°7′S 147°27′E*
Goodradigbee River **31** **B5**
Googong Reservoir **31** **E4**
Goolgowi **27** **D2** *33°59′S 145°43′E*
Goolwa **43** **G3** *35°30′S 138°47′E*
Goomalling **47** **C2** *31°18′S 116°50′E*
Goondiwindi **13** **E3** *28°33′S 150°20′E*
Goongarrie National Park **47** **D2**
Goornong **35** **D2** *36°37′S 144°30′E*
Goose Lake **108** **C4**
Gorakhpur **79** **D3** *26°45′N 83°23′E*
Gora Konzhakovskiy Kamen, mountain **87** **K4** *59°38′N 59°8′E*
Gora Lopatina, mountain **93** **O3** *50°51′N 143°8′E*
Gora Manas, mountain **74** **B4** *42°17′N 71°3′E*
Gordon, Lake **39** **D2**
Gordon River **39** **C2**
Gore **65** **C1** *46°6′S 168°56′E*
Goreme National Park **91** **L4**
Gorgan **83** **D4** *36°50′N 54°29′E*
Gorno Altaysk **81** **G5** *51°58′N 85°57′E*
Goroka **63** **F2** *6°5′S 145°23′E*
Goroke **34** **B2** *36°43′S 141°28′E*
Gorong, island **62** **C3** *4°8′S 131°22′E*
Gorontalo **71** **D3** *0°33′N 123°4′E*
Gorzow Wielkopolski **89** **J2** *52°44′N 15°14′E*
Gosford **27** **G3** *33°25′S 151°21′E*
Goshen Strait **63** **G1**
Goteborg **89** **I3** *57°45′N 12°0′E*
Gotland, island **87** **F4**
Gottingen **89** **I2** *51°31′N 9°55′E*
Goulburn **35** **F3** *34°45′S 149°43′E*
Goulburn Islands **62** **C1**
Goulburn River **35** **D2**
Goulburn River National Park **27** **G3**
Goure **99** **E3** *13°59′N 10°16′E*
Gourock National Park **31** **F1**
Gove Peninsula **51** **F8**
Governador Valadares **117** **E2** *18°52′S 41°58′W*
Government House **31** **D5** *35°18′S 149°5′E*
Governor's Harbour **111** **E3** *25°9′N 76°11′W*
Goycay **81** **C4** *40°39′N 47°44′E*
Graaff Reinet **101** **D1** *32°18′S 24°32′E*
Gracias a Dios, Cape **111** **D2** *15°0′N 83°10′W*
Grafton **13** **F3** *29°43′S 152°56′E*
Graham Land **57** **O3**
Grahamstown **101** **D1** *33°18′S 26°31′E*
Grampians National Park **34** **C2**
Granada, Nicaragua **111** **D2** *11°56′N 85°57′W*
Granada, Spain **84** **D2** *37°10′N 3°35′W*
Gran Canaria, island **98** **B4**
Gran Chaco **115** **E4**
Grand Bahama **105** **L4**
Grand Canyon **105** **H5**
Grand Canyon National Park **108** **C3**
Grand Cayman, island **111** **D2** *19°19′N 81°16′W*
Grande Bay **119** **C1**

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Grande River **117** **E2**
Grand Forks **109** **E4** *47°56'N 97°2'W*
Grandiozny, mountain **75** **D5** *54°4'N 93°54'E*
Grand Junction **108** **D3** *39°6'N 108°33'W*
Grand Prairie, Canada **106** **G3** *55°10'N 119°48'W*
Grand Prairie, United States of America **110** **C4** *32°41'N 97°1'W*
Grand Rapids **109** **F4** *42°58'N 85°40'W*
Grand Teton, mountain **108** **C4** *43°46'N 110°48'W*
Grand Turk **111** **E3** *21°28'N 71°8'W*
Grants Pass **108** **B4** *42°26'N 123°20'W*
Grassy **39** **B4** *40°3's 144°3'E*
Graz **85** **F3** *47°5'N 15°25'E*
Great Abaco, island **111** **E3** *26°25'N 77°10'W*
Great Australian Bight **13** **C2**
Great Barrier Island **65** **G6** *36°6's 175°25'E*
Great Barrier Reef **23** **C4**
Great Barrier Reef Marine Park **23** **C4**
Great Basin, island **105** **H5**
Great Bear Lake **106** **F4**
Great Britain, kingdom **68** **C5**
Great Dividing Range **27** **G3**
Great Eastern Desert **91** **F2**
Greater Antilles, island group **111** **E2**
Greater Khingan Range **75** **G4**
Greater Sunda Islands **71** **C2**
Great Exuma, island **111** **E3** *23°34'N 75°53'W*
Great Falls **108** **C4** *47°30'N 111°18'W*
Great Glennie Island **39** **D5**
Great Himalayan National Park Conservation Area **74** **B3**
Great Inagua, island **111** **E3** *21°7'N 73°24'W*
Great Kai, island **62** **C2** *5°29's 133°5'E*
Great Karroo, plateau **101** **D1**
Great Lake **39** **D3**
Great Nicobar, island group **73** **A2**
Great Otway National Park **34** **C1**
Great Oyster Bay **39** **F2** *42°12's 148°9'E*
Great Plains **105** **J6**
Great Rift Valley **101** **F6**
Great Salt Lake **108** **C4**
Great Sandy Desert **47** **D5**
Great Sandy National Park **23** **D2**
Great Sea Reef **61** **C4**
Great Slave Lake **107** **G4**

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Great Smoky Mountains National Park **109** **F3**
Great Victoria Desert **43** **C7**
Great Wall Station, Antarctic base **55** **P2** *62°13's 58°58'W*
Great Western Desert **90** **E3**
Greece, republic **85** **G2**
Green Bay **109** **F4** *44°32'N 88°0'W*
Greenland, kingdom **107** **O5**
Greenland Sea **84** **C5**
Greenock **88** **E3** *55°56'N 4°45'W*
Green River **108** **D3**
Green River, Papua New Guinea **62** **E3** *3°54's 141°11'E*
Green River, United States of America **108** **D4** *41°31'N 109°28'W*
Greensboro **109** **G3** *36°4'N 79°48'W*
Greenville, Liberia **98** **C2** *5°1'N 9°2'W*
Greenville, Mississippi **110** **C4** *33°25'N 91°4'W*
Greenville, South Carolina **109** **F3** *34°51'N 82°24'W*
Gregory, Lake **43** **G6**
Gregory National Park **47** **E5**
Gregory Range **23** **B4**
Grenada, independent state **111** **F2**
Grenada, island **115** **E8**
Grenfell **27** **F3** *33°54's 148°10'E*
Grenoble **85** **E3** *45°11'N 5°43'E*
Grenville, Cape **23** **B5** *11°58's 143°15'E*
Greymouth **65** **D3** *42°27's 171°12'E*
Grey Range **26** **C5**
Griffith **35** **E3** *34°17's 146°3'E*
Grim, Cape **39** **B4** *40°41's 144°41'E*
Grimsey, island **107** **Q4** *66°40'N 18°15'W*
Grise Fiord **107** **K5** *76°26'N 82°57'W*
Groningen **92** **A4** *53°13'N 6°35'E*
Groote Eylandt, island **62** **D1**
Grootfontein **101** **C3** *19°34's 18°7'E*
Gros Morne, mountain **107** **M2** *49°36'N 57°47'W*
Gros Morne National Park **107** **M2**
Grossglockner, mountain **87** **F3** *47°4'N 12°42'E*
Groznyy **83** **C5** *43°19'N 45°42'E*
Grudziadz **89** **J2** *53°29'N 18°45'E*
Gryazi **91** **M7** *52°30'N 39°56'E*
Grytviken **119** **F1** *54°17's 36°30'W*
Guadalajara, Mexico **110** **B3** *20°40'N 103°20'W*
Guadalajara, Spain **90** **D5** *40°38'N 3°10'W*
Guadalcanal, island **63** **H2**

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Guadalupe, Island **108** **C2** *29°3'N 119°19'W*
Guadeloupe, dependency **111** **F2**
Guadiana River **90** **C4**
Guainia River **116** **B4**
Guajara-Miram **117** **C2** *10°48's 65°21'W*
Guajira Peninsula **111** **E2**
Guam, dependency **69** **J3**
Guanacaste Conservation Area **111** **D2**
Guanajuato **110** **B3** *21°1'N 101°17'W*
Guanambi **117** **E2** *14°14's 42°47'W*
Guangdong, state **75** **F2**
Guangxi, state **75** **E2**
Guangyuan **79** **F4** *32°26'N 105°52'E*
Guangzhou **67** **H3** *23°9'N 113°19'E*
Guantanamo **111** **E3** *20°9'N 75°12'W*
Guapore River **117** **C2**
Guarapuava **117** **D1** *25°23's 51°29'W*
Guardafui, Cape **83** **D2** *11°49'N 51°14'E*
Guasopa **63** **G2** *9°9's 152°55'E*
Guatemala, republic **110** **C2**
Guatemala City **110** **D2** *14°37'N 90°32'W*
Guayaquil, Gulf of **116** **A3**
Guayaquil **116** **A3** *2°13's 79°55'W*
Guaymas **110** **A3** *27°56'N 110°53'W*
Gubkin **91** **L7** *51°16'N 37°23'E*
Gudgenby, Mount **31** **C2** *35°46's 148°55'E*
Gudgenby River **31** **C3**
Gueppi **116** **B3** *0°7's 75°14'W*
Guerrero Negro **110** **A3** *27°59'N 114°10'W*
Guiana Highlands **115** **F7**
Guide **79** **F4** *36°3'N 101°25'E*
Guider **100** **C6** *9°56'N 13°56'E*
Guilin **75** **E2** *25°17'N 110°17'E*
Guinea, Gulf of **100** **B5**
Guinea, republic **98** **B3**
Guinea-Bissau, republic **98** **B3**
Guinea Highlands **98** **C2**
Guines **111** **D3** *22°50'N 82°2'W*
Guiyang **75** **E2** *26°35'N 106°43'E*
Guizhou, state **79** **F3**
Gujarat, state **78** **C3**
Gujranwala **79** **C4** *32°10'N 74°11'E*
Gujrat **79** **C4** *32°35'N 74°5'E*
Gulargambone **27** **F4** *31°20's 148°28'E*
Gulbarga **79** **C2** *17°21'N 76°49'E*
Gulf Country **23** **B4**
Gulf of Papua **63** **E2**
Gulfport **110** **D4** *30°22'N 89°6'W*
Gulf St Vincent **43** **G3** *35°13's 138°15'E*

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Gulgong **27** **F3** *32°22's 149°32'E*
Gulu **101** **E5** *2°47'N 32°17'E*
Guna, mountain **99** **G3** *11°35'N 38°26'E*
Gunbower **35** **D3** *35°57's 144°22'E*
Gundabooka National Park **27** **D4**
Gundagai **35** **F3** *35°4's 148°6'E*
Gungahlin **31** **D5** *35°11's 149°7'E*
Gungoandra Gap **31** **E1** *35°54's 149°10'E*
Gunnbjorn Fjeld, mountain **107** **O5** *68°55'N 29°54'W*
Gunnedah **27** **G4** *30°59's 150°16'E*
Gunning **35** **F3** *34°47's 149°16'E*
Gunsan **77** **B3** *35°59'N 126°43'E*
Guntur **79** **C2** *16°20'N 80°27'E*
Gunung Mulu National Park **71** **C3**
Gurgaon **79** **C3** *28°27'N 77°1'E*
Gurupi **117** **E2** *11°43's 49°4'W*
Guwahati **79** **E3** *26°10'N 91°46'E*
Guyana, republic **111** **F1**
Guy Fawkes River National Park **27** **G4**
Guymon **109** **D3** *36°41'N 101°29'W*
Guyra **27** **G4** *30°13's 151°40'E*
Gwabegar **27** **F4** *30°36's 148°58'E*
Gwadar **78** **B3** *25°8'N 62°20'E*
Gwalior **79** **C3** *26°14'N 78°11'E*
Gwanda **101** **D2** *20°56's 29°1'E*
Gwangju **77** **B3** *35°10'N 126°55'E*
Gweru **101** **D3** *19°27's 29°49'E*
Gwydir River **27** **F5**
Gyegu **79** **E4** *33°1'N 96°44'E*
Gyeongju **77** **C3** *35°51'N 129°13'E*
Gympie **13** **F3** *26°11's 152°40'E*
Gyor **91** **H6** *47°42'N 17°38'E*
Gyzlarbat **83** **D4** *38°59'N 56°17'E*

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Haakon VII Sea **55** **B3**
Haast Pass **65** **C2** *44°6's 169°21'E*
Haboro **77** **F5** *44°24'N 141°46'E*
Hachijo Island **77** **F2** *33°7'N 139°48'E*
Hachinohe **77** **F4** *40°31'N 141°32'E*
Hachioji **77** **E3** *35°39'N 139°20'E*
Hadhramaut, range **83** **C2**
Hadiboh **83** **D2** *12°39'N 54°1'E*
Hadspen **39** **E3** *41°30's 147°4'E*
Haeju **77** **B4** *38°2'N 125°43'E*
Hafar al Batin **83** **C3** *28°26'N 45°58'E*
Ha Giang **70** **B5** *22°50'N 104°59'E*
Haifa **83** **B4** *32°49'N 34°59'E*
Haikou **71** **C4** *20°3'N 110°19'E*
Hail **83** **C3** *27°31'N 41°42'E*
Hailar **75** **G4** *49°12'N 119°42'E*

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Hailun **77** **B6** *47°27′N 126°56′E*
Hainan, state **75** **E1**
Hainan, island **71** **B4**
Hainan Strait **71** **C5**
Haiphong **75** **E2**
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Haiti, republic **103** **L3**
Haiya **83** **B2** *18°20′N 36°23′E*
Hajjah **83** **C2** *15°42′N 43°36′E*
Hakha **73** **A6**
Hakkari **83** **C4** *37°34′N 43°44′E*
Hakodate **77** **F4**
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Haldia **79** **D3** *22°2′N 88°4′E*
Hale River **51** **E2**
Halifax **107** **L2** *44°39′N 63°36′W*
Halifax Bay **23** **C4**
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Hall **31** **D6** *35°10′S 149°4′E*
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Halley, Antarctic base **55** **Q3**
75°35′S 26°34′W
Halls Creek, Northern Territory **51** **A5** *18°13′S 127°40′E*
Halls Creek, Tasmania **39** **C2**
42°8′S 145°30′E
Halls Gap **34** **C2** *37°8′S 142°31′E*
Halmahera, island **71** **D3**
Halmstad **89** **I3** *56°40′N 12°51′E*
Hamada **77** **C3** *34°56′N 132°9′E*
Hamada Du Draa, desert **90** **C2**
Hamadan **83** **C4** *34°48′N 48°31′E*
Hamah **83** **B4** *35°9′N 36°44′E*
Hamamatsu **77** **E3**
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Hamburg **85** **F4** *53°33′N 9°0′E*
Hamersley Range **14** **B3**
Hamhung **77** **B4**
39°55′N 127°33′E
Hami **75** **D4** *42°50′N 93°31′E*
Hamilton, Australia **34** **C2**
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Hamilton, Canada **109** **F4**
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Hamilton, New Zealand **65** **F6**
37°46′S 175°18′E
Hamilton, United Kingdom **111** **F4** *32°18′N 64°47′W*
Hamilton Inlet **107** **M3**
Hamilton River **51** **H3**
Hammamet, Gulf of **99** **E5**
Hammerfest **89** **K6**
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Hammersley Range **47** **C4**
Hamoyet, mountain **83** **B2**
17°33′N 38°0′E
Hampton **109** **G3** *37°2′N 76°21′W*
Hampton Tableland, range **47** **E2**
Hamuku **62** **C3** *3°23′S 135°9′E*
Hancock **109** **F4** *47°8′N 88°35′W*
Handan **75** **F3** *36°35′N 114°29′E*
Hanggin Houqi **75** **E4**
40°53′N 107°8′E
Hangzhou **75** **F3**
30°15′N 120°10′E
Hangzhou Bay **75** **G3**
Hania **91** **I4** *35°31′N 24°1′E*
Hannover **85** **E4** *52°22′N 9°43′E*
Hanoi **70** **B5** *21°2′N 105°51′E*
Hanpan, Cape **63** **H3**
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Han River **79** **F4**
Hanzhong **79** **F4** *33°8′N 107°2′E*
Haora **79** **D3** *22°35′N 88°20′E*
Har **62** **C2** *5°20′S 133°10′E*
Harar **83** **C1** *9°19′N 42°9′E*
Harare **101** **E3** *17°49′S 31°3′E*
Harbin **77** **B5** *45°45′N 126°39′E*
Harcourt **35** **D2** *37°0′S 144°16′E*
Hardangervidda, range **89** **H3**
Hargeysa **83** **C1** *9°34′N 44°4′E*
Harirud River **83** **E4**
Harlingen **110** **C3**
26°12′N 97°41′W
Harper **98** **C2** *4°23′N 7°43′W*
Harricana River **107** **K3**
Harris, Lake **43** **E5**
Harrisburg **109** **G4**
40°16′N 76°53′W
Harrisonburg **109** **G3**
38°27′N 78°52′W
Harstad **89** **J5** *68°47′N 16°31′E*
Hartford **109** **G4**
41°46′N 72°41′W
Hartwood, Mount **31** **B6**
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Hartz Mountains National Park **39** **D1**
Harvey **47** **C2** *33°5′S 115°54′E*
Haryana, state **79** **C3**
Hasa Plain **80** **C2**
Hassi Messaoud **91** **F3**
31°42′N 6°3′E
Hastings **35** **D1** *38°18′S 145°11′E*
Hatay **91** **L4** *36°14′N 36°7′E*
Ha Tinh **70** **B4** *18°20′N 105°54′E*
Hattah–Kulkyne National Park **34** **C3**
Hattah Lakes **34** **C3**
Hatteras, Cape **109** **G3**
35°26′N 75°27′W
Hattiesburg **110** **D4**
31°20′N 89°17′W
Hat Yai **79** **F1** *7°0′N 100°28′E*
Haugesund **89** **G3**
59°25′N 5°17′E
Hauraki Gulf **65** **F6**
36°22′S 175°10′E
Hauroko, Lake **65** **B1**
Havana **111** **D3** *23°8′N 82°22′W*
Havre **108** **D4** *48°33′N 109°41′W*
Hawaii, island **59** **J7**
Hawaiian Islands **59** **I8**
Hawea, Lake **65** **C2**
Hawera **65** **F5** *39°35′S 174°17′E*
Hawke Bay **65** **G5**
39°19′S 177°5′E
Hawker **43** **G5** *31°53′S 138°25′E*
Hay **35** **D3** *34°30′S 144°51′E*
Hay River **51** **F3**
Hay River **107** **G4**
60°51′N 115°42′W
Head of Bight **43** **C5**
31°48′S 131°11′E
Healesville **35** **D2**
37°39′S 145°31′E
Heard Island **55** **D2**
Hearst **109** **F4** *49°42′N 83°40′W*
Heathcote **35** **D2**
36°55′S 144°43′E
Hebei, state **75** **F3**
Hechi **75** **F2** *23°6′N 109°37′E*
Hefei **75** **F3** *31°51′N 117°17′E*
Hegang **77** **C6** *47°24′N 130°22′E*
Heidelberg **89** **H1**
49°25′N 8°42′E
Heihe **75** **G5** *50°15′N 127°27′E*
Heilongjiang, state **75** **G4**
Hejaz Mountains **83** **B3**
Hekla, mountain **107** **Q4**
63°53′N 19°22′W
Helena **108** **C4** *46°36′N 112°2′W*
Helensburgh **27** **G2**
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Helmand River **78** **B4**
Helong **77** **C5** *42°32′N 129°0′E*
Helsingborg **89** **I3**
56°3′N 12°42′E
Helsinki **85** **G5** *60°11′N 24°56′E*
Henan, state **75** **F3**
Hengduan Mountains **79** **E3**
Hengyang **75** **F2**
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Henryk Arctowski, Antarctic base **55** **P2** *62°9′S 58°29′W*
Herat **78** **B4** *34°20′N 62°10′E*
Hercules Bay **63** **F2**
Hereford **109** **D3**
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Hermannsburg **51** **D2**
23°57′S 132°47′E
Hermanus **101** **C1** *34°25′S 19°14′E*
Hermit Islands **63** **E3**
Hermosillo **110** **A3**
29°6′N 110°57′W
Heron Island **23** **D3**
Hervey Bay **23** **D3**
25°9′S 152°42′E
Hetauda **74** **C2** *27°25′N 85°2′E*
Heybridge **39** **D3** *41°5′S 145°59′E*
Heyfield **35** **E2** *37°59′S 146°47′E*
Heywood **34** **B1** *38°8′S 141°38′E*
Hibernia Reef **47** **D6**
Hidaka Range **77** **F5**
Hidalgo del Parral **110** **B3**
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Hierapolis-Pamukkale **99** **F5**
Hierro, island **98** **B4**
Higashiosaka **77** **E3**
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High Atlas, range **90** **D3**
High Coast **89** **J4**
Hiiumaa, island **87** **G4**
Hikurangi, mountain **65** **H6**
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Hillston **26** **D3** *33°29′S 145°32′E*
Hilo **59** **J7** *19°42′N 155°5′W*
Himachal Pradesh, state **79** **C4**
Himalayas, range **79** **D3**
Hims **91** **L3** *34°44′N 36°43′E*
Hinchinbrook Island **23** **C4**
Hinchinbrook Island National Park **23** **C4**
Hindmarsh, Lake **34** **B3**
Hindu Kush, range **79** **C4**
Hindupur **79** **C2** *13°47′N 77°29′E*
Hinthada **79** **E2** *17°39′N 95°28′E*
Hios **83** **A4** *38°22′N 26°8′E*
Hirado **77** **C2** *33°21′N 129°32′E*
Hirosaki **77** **F4** *40°34′N 140°28′E*
Hiroshima **67** **I4**
34°23′N 132°26′E
Hisar **74** **B2** *29°10′N 75°44′E*
Hisiu **63** **F2** *8°58′S 146°46′E*
Hispaniola, island **111** **E2**
Hitachi **77** **F3** *36°36′N 140°40′E*
Hivaoa, island **59** **L5**
Hoa Binh **70** **B5**
20°49′N 105°20′E
Hobart **13** **E1** *42°51′S 147°18′E*
Hobbs **110** **B4** *32°43′N 103°8′W*
Ho Chi Minh City **70** **B4**
10°47′N 106°42′E
Hodrogo **75** **D4** *48°58′N 96°47′E*
Hof **89** **I2** *50°19′N 11°55′E*
Hogan Island **39** **E5**
Hohhot **75** **F4** *40°49′N 111°39′E*
Hokianga Harbour **65** **E7**
35°25′S 173°25′E
Hokitika **65** **D3** *42°44′S 170°58′E*
Hokkaido, island **77** **F5**
Holbrook **35** **E3** *35°43′S 147°19′E*
Holguin **111** **E3** *20°53′N 76°16′W*
Holland, Mount **31** **F2**
35°46′S 149°20′E
Holman **107** **G5**
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Homestead **111** **E3**
25°43′N 80°17′W
Homs **83** **B4** *34°44′N 36°43′E*
Homyel **85** **H4** *52°26′N 31°0′E*
Honduras, Gulf of **110** **D2**
Honduras, republic **111** **D2**
Hong Gai **75** **E2** *20°58′N 107°6′E*
Hong Kong **71** **C5**
22°18′N 114°11′E
Hongze Lake **75** **F3**
Honiara **63** **H2** *9°26′S 159°57′E*
Honolulu **59** **I8** *21°19′N 157°52′W*
Hon Quan **70** **B4**
11°39′N 106°36′E
Honshu, island **77** **E3**
Hood, Point **15** **C2**
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Hook Island **23** **C4**
Hope, Point **106** **B4**
68°21′N 166°49′W
Hopetoun **34** **C3**
35°44′S 142°22′E
Hopkins, Lake **51** **B2**

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Horn, Cape **119** C1
55°52'S 67°10'W
Horoshiri Peak **77** F5
42°44'N 142°41'E
Horseshoe **47** C3
25°27'S 119°33'E
Horseshoe Hill **31** F3
35°37'S 149°23'E
Horsham **34** C2 *36°43'S 142°12'E*
Hosaina **101** E5 *7°33'N 37°51'E*
Hoskins **63** G2 *5°28'S 150°25'E*
Hoskinstown **31** F4
35°25'S 149°27'E
Hospet **79** C2 *15°17'N 76°23'E*
Hotan **79** D4 *37°6'N 79°56'E*
Hotham, Mount **35** E2
36°59'S 147°8'E
Hot Springs **110** C4
34°30'N 93°3'W
Houma, China **75** F3
35°37'N 111°13'E
Houma, United States of America **110** C3
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Houston **110** C3 *29°49'N 95°21'W*
Houtman Abrolhos, island group **47** B3
Hovsgol (Hovsgol Nuur), Lake **75** D5
Howe, Cape **35** G2
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Howlong **35** E3 *35°59'S 146°38'E*
Hrodna **85** G4 *53°41'N 23°50'E*
Hsinchu **75** F2 *24°49'N 120°59'E*
Huacho **116** B2 *11°7'S 77°37'W*
Hua Hin **73** C3
Huaibei **75** F3 *33°57'N 116°45'E*
Huainan **75** F3 *32°38'N 116°59'E*
Huaiyin **75** G3 *33°35'N 119°2'E*
Huambo **101** C3 *12°45'S 15°45'E*
Huancavelica **116** B2
12°47'S 74°59'W
Huancayo **116** B2 *12°5'S 75°12'W*
Huanglong Scenic and Historic Interest Area **79** F4
Huang River **75** E4
Huangshi **75** F3 *30°13'N 115°6'E*
Huanren **77** B4 *41°15'N 125°21'E*
Huanuco **116** B3 *9°55'S 76°14'W*
Huascaran, mountain **116** B3
9°7'S 77°37'W
Huascaran National Park **116** B3
Huasco **119** B4 *28°28'S 71°13'W*
Huatabampo **110** B3
26°50'N 109°38'W
Hubei, state **75** F3
Hubei Shennongjia **75** F3
Hubli **79** C2 *15°22'N 75°7'E*
Hudson Bay **107** J3
Hudson Bay **109** D5
52°51'N 102°23'W
Hudson River **109** G4
Hudson Strait **107** K4
Hue **70** B4 *16°28'N 107°35'E*
Huelva **90** C4 *37°15'N 6°56'W*
Hughenden **23** B3
20°51'S 144°12'E
Hughes **43** B5 *30°43'S 129°31'E*
Huila, mountain **116** B4
3°3'N 75°59'W
Huinan **77** B5 *42°37'N 126°16'E*
Huize **79** F3 *26°21'N 103°25'E*
Hulan Ergi **77** A6
47°13'N 123°37'E
Hulin **77** D5 *45°46'N 132°0'E*
Humboldt River **108** C4
Hume, Lake **35** E2
Hume **31** E4 *35°25'S 149°10'E*
Humphreys Peak, mountain **108** C3 *35°21'N 111°41'W*
Humpty Doo **51** C8
12°35'S 131°8'E
Hun **91** H2 *29°7'N 15°56'E*
Huna Bay **107** P4
Hunan, state **75** F2
Hungary, republic **85** F3
Hungnam **75** G3
39°49'N 127°37'E
Hunter Island **39** B4
Hunter River **27** G3
Huntington **109** F3
38°25'N 82°27'W
Huntly **65** F6 *37°34'S 175°10'E*
Huntsville, Alabama **110** C4
30°43'N 95°33'W
Huntsville, Texas **110** D4
34°43'N 86°37'W
Huon Gulf **63** F2
Huon River **39** D1
Huonville **39** D1 *43°2'S 147°3'E*
Hurdiyo **83** D2 *10°35'N 51°7'E*
Hurghada **83** B3 *27°14'N 33°50'E*
Huron, Lake **109** F4
Hurstbridge **35** D2
37°38'S 145°12'E
Hut Pond, Point **31** D4
Hvannadalshnukur, mountain **88** C4 *64°1'N 16°41'W*
Hydaburg **106** E3
55°13'N 132°48'W
Hyderabad, India **79** C2
17°24'N 78°29'E
Hyderabad, Pakistan **78** B3
25°23'N 68°22'E
Hyeson **77** C4 *41°24'N 128°12'E*

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Ialibu **63** E2 *6°23'S 143°49'E*
Iasi **85** G3 *47°10'N 27°34'E*
Iavuki **61** C1 *19°5'S 178°9'E*
Ibadan **100** B5 *7°23'N 3°56'E*
Ibague **116** B4 *4°26'N 75°14'W*
Ibarra **116** B4 *0°22'N 78°8'W*
Ibb **83** C2 *13°59'N 44°10'E*
Iberian Peninsula **86** D2
Ibiza, island **86** E2
Ibonma **62** C3 *3°30'S 133°31'E*
Ica **116** B2 *14°4'S 75°44'W*
Icel **85** H2 *36°48'N 34°37'E*
Iceland, island **86** C5
Iceland, republic **84** C5
Ichkeul National Park **99** D5
Idah **100** B5 *7°7'N 6°44'E*
Idaho, state **108** C4
Idaho Falls **108** C4
43°28'N 112°2'W
Idalia National Park **23** B2
Idlib **83** B4 *35°56'N 36°38'E*
Ife **100** B5 *7°29'N 4°34'E*
Ifrane **97** D8 *33°32'N 5°07'W*
Igarka **93** I5 *67°28'N 86°35'E*
Igloolik **107** J4 *69°15'N 81°48'W*
Igom **62** B3 *2°0'S 130°4'E*
Iguacu National Park **117** D1
Iguala **110** C2 *18°22'N 99°32'W*
Iguatu **117** F3 *6°22'S 39°18'W*
Iguazu Falls **117** D1
25°34'S 54°35'W
Iguidi Desert **90** D2
Ihosy **101** F2 *22°24'S 46°7'E*
Ihu **63** F2 *7°51'S 145°24'E*
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Karbala **83** C4 *32°37′N 44°1′E*
Karelia, region **87** H5
Kargat **81** G5 *55°12′N 80°17′E*
Kariba, Lake **101** D3
Kariba **101** D3 *16°32′s 28°48′E*
Karijini National Park **47** C4
Karikari, Cape **65** E7
34°47′s 173°24′E
Karimnagar **79** C2
18°28′N 79°7′E
Kar Kar Island **63** F3
Karlsruhe **85** E3 *49°0′N 8°24′E*
Karlstad **89** I3 *59°22′N 13°30′E*
Karnal **81** F2 *29°41′N 76°58′E*
Karnataka, state **79** C2
Karokh **78** B4 *34°29′N 62°36′E*
Karoko **61** D4 *16°30′s 179°55′E*
Karonga **101** E3 *9°56′s 33°56′E*
Karoonda **43** H3 *35°6′s 139°54′E*
Karpathos, island **91** J4
Karratha **12** B3 *20°44′s 116°52′E*
Kars **83** C5 *40°37′N 43°6′E*
Kartaly **81** E5 *53°3′N 60°41′E*
Karufa **62** C3 *3°50′s 133°25′E*
Karumba **51** H6 *17°29′s 140°50′E*
Karur **79** C2 *10°57′N 78°5′E*
Kasai River **101** C4
Kasaji **101** D3 *10°22′s 23°27′E*
Kasama **101** E3 *10°12′s 31°11′E*
Kasavu **61** C3 *17°58′s 178°32′E*
Kasba Lake **107** H4
Kasempa **101** D3 *13°28′s 25°49′E*
Kashan **83** D4 *33°59′N 51°35′E*
Kashgar **81** F3 *39°29′N 75°58′E*
Kashi **79** C4 *39°29′N 75°58′E*
Kashmar **78** A4 *35°11′N 58°27′E*
Kasiui, island **62** C3
4°29′s 131°37′E
Kasongo **101** D4 *4°27′s 26°40′E*
Kassala **83** B2 *15°28′N 36°23′E*
Kassel **89** I2 *51°18′N 9°30′E*
Kastamonu **80** B4
41°23′N 33°47′E
Kasur **81** F3 *31°8′N 74°27′E*
Katahdin, Mount **109** H4
45°54′N 68°55′W
Katamatite **35** D2
36°5′s 145°41′E
Katanga Plateau **97** G3
Katanning **12** B2
33°42′s 117°33′E
Kata Tjuta **43** C8
25°18′s 130°44′E
Katerini **91** I5 *40°16′N 22°30′E*
Katherine **51** C7 *14°28′s 132°16′E*
Katherine River **62** C1
Kathmandu, Nepal **79** D3
27°43′N 85°19′E
Kati Thanda / Lake Eyre North **43** F6
Kati Thanda / Lake Eyre National Park **43** F6
Kati Thanda / Lake Eyre South **43** F6
Katmai, Mount **106** C3
58°17′N 154°57′W
Katoomba **27** G3
33°43′s 150°19′E
Katowice **85** G4 *50°16′N 19°1′E*
Katsina **98** D3 *12°59′N 7°36′E*
Kattegat, fjord **89** I3
Kauai, island **59** I8
Kaunas **85** G4 *54°57′N 23°53′E*
Kavala **83** A5 *40°56′N 24°24′E*
Kavalerovo **77** D5
44°16′N 135°3′E
Kavaratti **78** C2 *10°34′N 72°38′E*
Kavieng **63** G3 *2°35′s 150°49′E*
Kavir Desert **81** D3
Kawagoe **77** F3
35°55′N 139°29′E
Kawarau River **65** C2
Kawasaki **77** F3
35°32′N 139°42′E
Kawerau **65** G5 *38°5′s 176°43′E*
Kawhia Harbour **65** F5
38°5′s 174°50′E
Kayan River **71** C3
Kayeli **62** B3 *3°26′s 127°8′E*
Kayes **98** B3 *14°27′N 11°26′W*
Kayseri **83** B4 *38°44′N 35°29′E*
Kazakhstan, republic **81** E4
Kazakh Steppe **81** F5
Kazakh Upland, plateau **81** F4
Kazan **85** J4 *55°45′N 49°7′E*
Kaziranga National Park **79** E3
Kearney **109** E4 *40°42′N 99°5′W*
Kebili **97** E8 *33°42′N 8°57′E*
Kebnekaise, mountain **87** G5
67°53′N 18°33′E
Kecskemet **91** I6
46°54′N 19°42′E
Kediri **71** C2 *7°47′s 112°0′E*
Keelung **75** G2 *25°8′N 121°44′E*
Keep River National Park **51** B7

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Keer-weer, Cape **62 E1**
13°52′S 141°25′E
Keetmanshoop **101 C2**
26°34′S 18°8′E
Keflavik **107 P4** *64°1′N 22°34′W*
Keith **34 B2** *36°6′S 140°21′E*
Kelang **70 B3** *3°1′N 101°33′E*
Kellerberrin **47 C2**
31°38′S 117°43′E
Kelly, Mount **31 C2**
35°43′S 148°53′E
Kelo **101 C5** *9°19′N 15°48′E*
Keluang **70 B3** *2°2′N 103°19′E*
Kemendok National Park **34 C3**
Kemerovo **93 I4** *55°20′N 86°5′E*
Kemi **89 L5** *65°44′N 24°35′E*
Kemp Coast **57 C3**
Kempsey **27 H4** *31°5′S 152°50′E*
Kempton **39 E2** *42°32′S 147°12′E*
Kenai Peninsula **106 C3**
Kendall **27 H4** *31°38′S 152°42′E*
Kendari **71 D2** *3°57′S 122°36′E*
Kenitra **90 C3** *34°16′N 6°35′W*
Kennedy Range National Park **47 B4**
Kenora **109 E4** *49°46′N 94°28′W*
Kentau **81 E4** *43°31′N 68°31′E*
Kent Group National Park **39 E5**
Kentucky, state **109 F3**
Kenya, Mount **101 E4**
0°9′S 37°18′E
Kenya, republic **101 E5**
Kenya Lake System in the Great Rift Valley **99 G2**
Kepi **62 D2** *6°31′S 139°19′E*
Keppel Bay **23 D3**
23°24′S 150°53′E
Kerala, state **79 C2**
Kerang **34 C3** *35°44′S 143°55′E*
Keraudren, Cape **47 C5**
19°57′S 119°46′E
Kerch **91 L6** *45°22′N 36°29′E*
Keren **83 B2** *15°41′N 38°27′E*
Kerguelen Islands **55 D2**
Kerikeri **65 E7** *35°14′S 173°57′E*
Kerkyra **91 H4** *39°37′N 19°55′E*
Kerma **83 B2** *19°38′N 30°25′E*
Kerman **83 D4** *30°18′N 57°5′E*
Kermanshah **83 C4**
34°23′N 47°3′E
Kesennuma **77 F4**
38°56′N 141°35′E
Keshan **77 B6** *48°2′N 125°52′E*
Ketchikan **106 E3**
55°21′N 131°40′W
Kettering **39 E1** *43°8′S 147°15′E*
Kevir-E Namak **83 E4**
Key West **111 D3**
24°33′N 81°47′W
Khabarovsk **77 D6**
48°27′N 135°7′E
Khammam **79 D2**
17°17′N 80°10′E
Khancoban **35 F2**
36°13′S 148°8′E
Khandyga **93 N5**
62°40′N 135°36′E
Khangai Mountains **75 D4**
Khangchendzonga National Park **75 D2**
Khanka, Lake **77 D5**
Khanty Mansiysk **93 H5**
61°0′N 69°0′E
Kharkiv **85 H3** *50°0′N 36°15′E*
Khartoum **83 B2** *15°35′N 32°32′E*
Khaskovo **83 A5** *41°57′N 25°34′E*
Khatanga **93 J6** *72°2′N 102°28′E*
Kherson **85 H3** *46°38′N 32°36′E*
Kheta River **93 J6**
Khilok **75 F5** *51°21′N 110°27′E*
Khiwa **83 D5** *41°23′N 60°21′E*
Khmelnytskyy **85 G3**
49°25′N 27°0′E
Kholmsk **77 F6** *47°3′N 142°4′E*
Khomeini Shahr **99 I5**
32°42′N 51°28′E
Khon Kaen **79 F2**
16°25′N 102°50′E
Khorat Plateau **73 C4**
Khorramabad **99 H5**
33°29′N 48°21′E
Khorugh **79 C4** *37°29′N 71°33′E*
Khromtau **81 D5** *50°16′N 58°27′E*
Khujand **81 E4** *40°17′N 69°37′E*
Khulna **79 D3** *22°51′N 89°33′E*
Khvoy **83 C4** *38°32′N 44°58′E*
Kia, island **61 D4** *16°14′S 179°6′E*
Kiama **27 G2** *34°40′S 150°51′E*
Kidnappers, Cape **65 G5**
39°39′S 177°6′E
Kiel **89 I2** *54°20′N 10°8′E*
Kielce **89 K2** *50°53′N 20°40′E*
Kieta **63 H2** *6°13′S 155°38′E*
Kiev (Kyiv) **91 K7**
50°26′N 30°31′E
Kiewa River **35 E2**
Kiffa **98 B3** *16°37′N 11°24′W*
Kigali **101 E4** *1°57′S 30°4′E*
Kigoma **101 E4** *4°53′S 29°37′E*
Kii Channel **77 D2**
Kikori **63 E2** *7°24′S 144°14′E*
Kikwit **101 C4** *5°2′S 18°51′E*
Kilchu **77 C4** *40°58′N 129°19′E*
Kilimanjaro, Mount **101 E4**
3°5′S 37°21′E
Kilimanjaro National Park **101 E4**
Kilinailau, island **63 H3**
Kilinochchi **79 D1** *9°24′N 80°24′E*
Kilis **83 B4** *36°43′N 37°7′E*
Kilkenny **88 E2** *52°39′N 7°15′W*
Killarney **88 E2** *52°3′N 9°31′W*
Killeen **110 C4** *31°7′N 97°44′W*
Kilmore **35 D2** *37°18′S 144°57′E*
Kilosa **101 E4** *6°50′S 36°59′E*
Kimba **43 F4** *33°8′S 136°25′E*
Kimbe **63 G2** *5°34′S 150°8′E*
Kimbe Bay **63 G2**
Kimberley, plateau **47 E5**
Kimberley, South Africa **101 D2**
28°45′S 24°46′E
Kimchaek **77 C4**
40°40′N 129°12′E
Kimhyonggwon **77 C4**
40°49′N 128°9′E
Kimmirut **107 L4**
62°51′N 69°53′W
Kimry **89 N3** *56°52′N 37°21′E*
Kinabalu, Mount **71 C3**
6°5′N 116°33′E
Kinabalu Park **71 C3**
Kinchega National Park **26 C3**
Kindu, Democratic Republic of the Congo **101 D4**
2°58′S 25°55′E
King, Lake **35 E2**
Kingaroy **23 D2** *26°32′S 151°50′E*
King Christian IX Land **107 P4**
King Frederik VI Coast **107 N4**
King Frederik VIII Land **107 P5**
King George Sound **47 C1**
35°3′S 117°59′E
King Island **39 A5**
Kinglake **35 D2** *37°32′S 145°20′E*
King Leopold Range **47 E5**
Kingoonya **13 D2**
30°54′S 135°18′E
King River **35 E2**
Kingscote **43 F3**
35°39′S 137°38′E
King Sejong, Antarctic base **55 P2** *62°13′S 58°47′W*
King Sound **47 D5**
17°9′S 123°27′E
Kingston, Canada **109 G4**
44°14′N 76°29′W
Kingston, Jamaica **111 E2**
17°59′N 76°46′W
Kingston, Queensland **23 D2**
27°39′S 153°7′E
Kingston, Tasmania **39 E2**
42°59′S 147°19′E
Kingston South East, South Australia **43 G2**
36°50′S 139°51′E
Kingston upon Hull **89 G2**
53°45′N 0°20′W
Kingstown **111 F2** *13°9′N 61°13′W*
Kingsville **110 C3**
27°31′N 97°51′W
King Wilhelm Land **107 P5**
King William, Lake **39 D2**
King William Island **107 I4**
Kinshasa **101 C4** *4°20′S 15°19′E*
Kioa, island **61 D4**
16°38′S 179°56′E
Kipili **101 E4** *7°26′S 30°36′E*
Kipushi **101 D3** *11°46′S 27°15′E*
Kirensk **93 K4** *57°47′N 108°7′E*
Kirghiz Steppe **69 F4**
Kiribati, republic **59 I5**
Kirikkale **83 B4** *39°51′N 33°32′E*
Kiritimati (Christmas Island) **59 J6**
Kiriwina Island **63 G2**
8°42′S 151°4′E
Kirkenes **89 M5** *69°44′N 30°3′E*
Kirksville **109 E4**
40°12′N 92°35′W
Kirkuk **83 C4** *35°28′N 44°24′E*
Kirkwall **88 F3** *58°58′N 2°57′W*
Kirov **85 I4** *58°35′N 49°40′E*
Kirovohrad **89 M1**
48°30′N 32°16′E
Kirovsk **89 M5** *67°37′N 33°40′E*
Kirthar Range **78 B3**
Kiruna **89 K5** *67°51′N 20°13′E*
Kisangani **101 D5** *0°31′N 25°13′E*
Kishkenekol **81 F5**
53°38′N 72°20′E
Kisii **101 E4** *0°40′S 34°46′E*
Kislovodsk **80 C4**
43°55′N 42°43′E
Kismaayo **101 F4** *0°21′S 42°31′E*
Kissimmee **111 D3**
28°18′N 81°24′W
Kisumu **101 E4** *0°5′S 34°45′E*
Kita **98 C3** *13°3′N 9°29′W*
Kitakyushu **77 C2**
33°52′N 130°49′E
Kitami **77 G5** *43°51′N 143°54′E*
Kitchener, Australia **47 D2**
31°2′S 124°11′E
Kitchener, Canada **109 F4**
43°27′N 80°30′W
Kitgum **101 E5** *3°18′N 32°52′E*
Kitwe **101 D3** *12°49′S 28°13′E*
Kiunga **62 E2** *6°7′S 141°18′E*
Kivu, Lake **101 D4**
Kiwai Island **62 E2**
8°36′S 143°28′E
Kizilirmak River **91 K4**
Kjolen Mountains **89 I4**
Klagenfurt **91 G6** *46°37′N 14°19′E*
Klaipeda **85 G4** *55°43′N 21°7′E*
Klamath Falls **108 B4**
42°14′N 121°47′W
Klerksdorp **101 D2**
26°53′S 26°37′E
Klin **89 N3** *56°21′N 36°42′E*
Klintsy **89 M2** *52°46′N 32°15′E*
Kluane / Wrangell – St Elias / Glacier Bay / Tatshenshini – Alsek **106 D3**
Klyuchevskaya Sopka, mountain **93 Q4** *56°3′N 160°39′E*
Knoxville **109 F3**
35°58′N 83°55′W
Knud Rasmussen Land, region **107 M5**
Kobe **77 D3** *34°41′N 135°10′E*
Kobi **62 B3** *3°0′S 129°55′E*
Koblenz **89 H2** *50°21′N 7°36′E*
Kobroor, island **62 D2**
6°8′S 134°36′E
Kobuk River **106 C4**
Kocaeli **85 H3** *40°47′N 29°56′E*
Kochi, India **79 C2** *10°1′N 76°13′E*
Kochi, Japan **77 D2**
33°34′N 133°32′E
Kocoma **61 E4**
Kodiak **106 C3** *57°47′N 152°24′W*
Kodiak Island **106 C3**

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Kofu **77** **E3** *35°39'N 138°35'E*
Kohnen, Antarctic base **55** **A3** *70°0's 0°4'E*
Kohtla-Jarve **89** **L3** *59°24'N 27°17'E*
Koje Island **77** **C3** *34°56'N 128°41'E*
Kojonup **47** **C2** *33°50's 117°10'E*
Kok-Aral Dam **81** **E4**
Kokkola **89** **K4** *63°50'N 23°7'E*
Kokoda **63** **F2** *8°53's 147°44'E*
Kokomo **109** **F4** *40°29'N 86°8'W*
Kokopo **63** **G3** *4°21's 152°16'E*
Kokshetau **92** **G4** *53°18'N 69°25'E*
Koktokay **81** **G4** *47°0'N 89°28'E*
Kola, island **62** **C2** *5°31's 134°35'E*
Kola Peninsula **85** **H5**
Kolar **79** **C2** *13°8'N 78°8'E*
Kolguyev Island **89** **P5**
Kolhapur **79** **C2** *16°42'N 74°13'E*
Kolkata **79** **D3** *22°30'N 88°19'E*
Kollam **79** **C1** *8°54'N 76°34'E*
Koln **89** **H2** *50°56'N 6°57'E*
Kolomna **85** **H4** *55°5'N 38°47'E*
Kolpino **89** **M3** *59°44'N 30°39'E*
Kolwezi **101** **D3** *10°43's 25°28'E*
Kolyma Range **93** **P5**
Kolyma River **93** **P5**
Komo **62** **E2** *6°2's 142°51'E*
Kom Ombo **83** **B3** *24°28'N 32°57'E*
Komoran Island **62** **D2** *8°18's 138°46'E*
Kompong Chhnang **73** **D3** *12°15'N 104°40'E*
Komsomolets Island **93** **K7**
Komsomolsk na Amure **75** **H5** *50°33'N 137°1'E*
Konda **62** **C3** *1°36's 131°58'E*
Kondopoga **89** **M4** *62°13'N 34°17'E*
Kondoz **78** **B4** *36°44'N 68°52'E*
Koneurgench **83** **D5** *42°19'N 59°10'E*
Kong River **70** **B4**
Konos **63** **G3** *3°8's 151°43'E*
Konotop **89** **M2** *51°15'N 33°13'E*
Kon Tum **70** **B4** *14°23'N 107°59'E*
Konya **85** **H2** *37°53'N 32°28'E*
Koolyanobbing **12** **B2** *30°49's 119°31'E*
Koondrook **35** **D3** *35°38's 144°7'E*
Korea Strait **77** **C2**
Korhogo **98** **C2** *9°28'N 5°38'W*
Koriyama **77** **F3** *37°25'N 140°23'E*
Korla **74** **C4** *41°44'N 86°9'E*
Koro, island **61** **D3** *17°19's 179°24'E*
Koroba, mountain **61** **B3** *17°52's 177°34'E*
Koroinasolo **61** **C4** *16°45's 178°32'E*
Koroit **34** **C1** *38°18's 142°22'E*
Koroiyaca **61** **B3** *17°44's 177°28'E*
Korong Vale **34** **C2** *36°21's 143°42'E*
Koro Sea **61** **D3**
Korosten **89** **L2** *50°57'N 28°39'E*
Korosuli **61** **C3** *17°46's 178°15'E*
Korovou **61** **C3** *17°49's 178°32'E*
Koroyanitu, mountain **61** **B3** *17°40's 177°34'E*
Korsakov **77** **F6** *46°39'N 142°47'E*
Korumburra **35** **D1** *38°26's 145°49'E*
Koryak Range **93** **R5**
Kos **83** **A4** *36°54'N 27°17'E*
Kosciuszko National Park **31** **A3**
Koshiki Archipelago, island **77** **C2** *31°43'N 129°46'E*
Kosice **85** **G3** *48°44'N 21°15'E*
Kosovo, republic **85** **G3**
Kosrae, island **59** **F6**
Kosti **83** **B2** *13°10'N 32°40'E*
Kostroma **85** **I4** *57°46'N 40°56'E*
Koszalin **89** **J2** *54°12'N 16°11'E*
Kota **79** **C3** *25°11'N 75°50'E*
Kota Baharu **79** **F1** *6°7'N 102°14'E*
Kotabumi **70** **B2** *4°50's 104°54'E*
Kota Kinabalu **71** **C3** *5°59'N 116°7'E*
Kotlas **92** **E5** *61°16'N 46°40'E*
Kotto River **101** **D5**
Kotuy River **93** **K5**
Kotzebue **106** **B4** *66°54'N 162°36'W*
Kotzebue Sound **106** **B4**
Kovel **89** **L2** *51°13'N 24°43'E*
Kovrov **85** **I4** *56°22'N 41°20'E*
Kowanyama **23** **B4** *15°28's 141°45'E*
Kow Swamp **35** **D3**
Koyukuk River **106** **C4**
Kozhikode **79** **C2** *11°15'N 75°46'E*
Krabi **73** **B2** *8°3'N 98°55'E*
Kracheh **73** **D3** *12°28'N 106°1'E*
Kragujevac **91** **I5** *44°1'N 20°55'E*
Krakatoa, mountain **70** **B2** *6°6's 105°25'E*
Krakow **85** **G3** *50°4'N 19°57'E*
Kramatorsk **85** **H3** *48°43'N 37°32'E*
Krasnodar **85** **H3** *45°1'N 39°0'E*
Krasnogorsk **77** **F6** *48°28'N 142°5'E*
Krasnouralsk **92** **G4** *58°21'N 60°3'E*
Krasnoyarsk **67** **G5** *56°1'N 92°52'E*
Krau **62** **E3** *3°17's 140°8'E*
Kremenchuk **89** **M1** *49°5'N 33°26'E*
Krishna River **79** **C2**
Kristiansand **89** **H3** *58°10'N 8°0'E*
Kristianstad **89** **J3** *56°2'N 14°8'E*
Krong Koh Kong **79** **F2** *11°37'N 102°59'E*
Kryvyy Rih **85** **H3** *47°56'N 33°21'E*
Ksar El Kebir **90** **C4** *35°1'N 5°55'W*
Kualakapuas **71** **C2** *3°6's 114°21'E*
Kuala Lumpur **70** **B3** *3°10'N 101°42'E*
Kuala Terengganu **79** **F1** *5°20'N 103°7'E*
Kualatungkal **70** **B2** *0°49's 103°26'E*
Kuantan **70** **B3** *3°50'N 103°19'E*
Kuata, island **61** **B3** *17°22's 177°9'E*
Kuching **71** **C3** *1°32'N 110°20'E*
Kudymkar **92** **F4** *59°1'N 54°38'E*
Kugluktuk **107** **G4** *67°48'N 115°8'W*
Kuh-e Fuladi, mountain **81** **E3**
Kuh-e Hezar, mountain **83** **D3** *29°31'N 57°16'E*
Kuibyshev Reservoir **87** **J4**
Kuji **77** **F4** *40°13'N 141°47'E*
Kukipi **63** **F2** *8°13's 146°9'E*
Kulgera **43** **D8** *25°52's 133°25'E*
Kulgera Roadhouse **51** **D2** *25°49's 133°16'E*
Kulla / McIlwraith Range National Park **23** **B5**
Kulob **78** **C4** *37°55'N 69°47'E*
Kulunda **81** **F5** *52°35'N 78°57'E*
Kulun Mountains **81** **G3**
Kumaka **117** **D4** *3°54'N 58°23'W*
Kumamoto **75** **H3** *32°48'N 130°42'E*
Kumasi **98** **C2** *6°42'N 1°38'W*
Kumba **100** **C5** *4°38'N 9°26'E*
Kumbakonam **79** **D2** *10°59'N 79°24'E*
Kumbo **100** **C5** *6°13'N 10°41'E*
Kumertau **81** **D5** *52°46'N 55°47'E*
Kunashir, island **77** **G5**
Kundian **81** **F3** *32°27'N 71°28'E*
Kundiawa **63** **E2** *6°1's 144°58'E*
Kunes River **74** **C4**
Kunlun, Antarctic base **55** **D3** *80°25's 77°7'E*
Kunlun Mountains **69** **G4**
Kunming **79** **F3** *25°4'N 102°41'E*
Kunua **63** **G2** *5°47's 154°45'E*
Kununurra **51** **B7** *15°47's 128°45'E*
Kuopio **89** **L4** *62°54'N 27°42'E*
Kupang **71** **D1** *10°11's 123°35'E*
Kupiano **63** **F1** *10°5's 148°11'E*
Kupina **81** **F5** *54°22'N 77°16'E*
Kupyansk **91** **L6** *49°43'N 37°36'E*
Kuqa **74** **C4** *41°44'N 82°56'E*
Kur, island **62** **C2** *5°23's 132°1'E*
Kure **77** **D3** *34°15'N 132°34'E*
Kurgan **92** **G4** *55°28'N 65°21'E*
Kuril Islands, island group **93** **O3**
Kurnool **79** **C2** *15°50'N 78°2'E*
Kursk **85** **H4** *51°44'N 36°11'E*
Kuruman **101** **D2** *27°27's 23°25'E*
Kurume **77** **C2** *33°21'N 130°29'E*
Kushiro **77** **G5** *42°58'N 144°22'E*
Kuskokwim River **106** **C4**
Kutahya **83** **A4** *39°25'N 29°56'E*
Kutaisi **92** **E3** *42°15'N 42°44'E*
Kutini - Payamu / Iron Range National Park **23** **B5**
Kuujjuaq **107** **L3** *58°6'N 68°24'W*
Kuujjuarapik **107** **K3** *55°17'N 77°46'W*
Kuwait, kingdom **66** **E3**
Kuybyshevskiy **78** **B4** *37°59'N 68°41'E*
Kuznetsk **81** **C5** *53°7'N 46°36'E*
Kwikila **63** **F2** *9°48's 147°40'E*
Kwinana **12** **B2** *32°14's 115°46'E*
Kwoka, Mount **62** **C3** *0°31's 132°27'E*
Kyabram **35** **D2** *36°19's 145°3'E*
Kyakhta **75** **E5** *50°21'N 106°27'E*
Kyaukphyu **79** **E2** *19°26'N 93°33'E*
Kyebang-san, mountain **77** **B3**
Kyneton **35** **D2** *37°15's 144°27'E*
Kyoga, Lake **101** **E5**
Kyogle **27** **H5** *28°37's 153°0'E*
Kyoto **77** **D3** *35°2'N 135°45'E*
Kyrgyzstan, republic **74** **B4**
Kyushu, island **77** **C2**
Kyustendil **91** **I5** *42°17'N 22°41'E*
Kyzyl **75** **D5** *51°42'N 94°23'E*

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Laayoune **98** **B4** *27°9'N 13°12'W*
Labasa **61** **D4** *16°25's 179°23'E*
Labasa River **61** **D4**
Labrador, island **107** **L3**
Labrador and Newfoundland, province **107** **M3**
Labrador City **107** **L3** *52°56'N 66°55'W*
Labrador Sea **107** **M4**
Labutta **79** **E2** *16°10'N 94°42'E*
Laccadive Islands **78** **C2**
Laccadive Sea **79** **C1**
La Ceiba **110** **D2** *15°46'N 86°48'W*
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Lachlan River **35** **D3**
Lac La Martre **107** **G4**
Lac la Ronge **107** **H3**
La Coruna **84** **D3** *43°20'N 8°25'W*
Lac St-Jean **109** **G4**
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Lady Barron **39** **F4** *40°13's 148°15'E*
Lady Elliot Island **23** **D3**
Lady Musgrave Island **23** **D3**

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La Esmeralda **116** C4
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Lafayette, Indiana **109** F4
40° 25′N 86° 53′W
Lafayette, Louisiana **110** C4
30° 12′N 92° 1′W
Laghouat **90** E3 *33° 49′N 2° 53′E*
Lagoon, Island **43** F5
Lagos **100** B5 *6° 27′N 3° 23′E*
La Grande **108** C4
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La Grange **111** D4 *33° 2′N 85° 2′W*
Laguna de Guzman **110** B4
Lagunas **117** C1 *20° 59′S 69° 41′W*
Lahad Datu **71** C3 *5° 3′N 119° 20′E*
Lahat **70** B2 *3° 48′S 103° 32′E*
Lahij **83** C2 *13° 3′N 44° 53′E*
Lahore, Pakistan **79** C4
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Lahti **89** L4 *61° 0′N 25° 40′E*
Laiwui **62** B3 *1° 21′S 127° 38′E*
Lajamanu **51** C5
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Lajes **119** D4 *27° 49′S 50° 19′W*
Lake Assal, depression **99** H3
Lake Baikal **75** E5
Lake Baikal **75** E5
Lake Boga **34** C3
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Lake Bolac **34** C2
37° 43′S 142° 50′E
Lake Cargelligo **27** E3
33° 18′S 146° 22′E
Lake Charles **110** C4
30° 14′N 93° 13′W
Lake City **111** D4
30° 11′N 82° 38′W
Lake Eildon National Park **35** D2
Lake Ellesmere **65** E3
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Lake Evella **51** E8
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Lake Gairdner National Park **43** F5
Lake Grace **47** C2
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Lake Louise **108** C5
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Lake Malawi National Park **101** E3
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Lake Murray **62** E2
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Lakes Entrance **35** F2
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Lakes of Ounianga **99** F3
Lake Torrens National Park **43** F5
Lake Turkana National Park **99** G2
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Lalitpur **79** D3 *27° 40′N 85° 20′E*
Lamar **109** D3 *38° 5′N 102° 37′W*
Lambarene **100** C4
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Lambert, Cape **63** G3
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Lameroo **34** B3 *35° 20′S 140° 31′E*
Lami **61** C2 *18° 6′S 178° 24′E*
Lammefjord, depression **89** I3
Lampang **79** E2 *18° 17′N 99° 29′E*
Lamphun **73** B5 *18° 30′N 99° 4′E*
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Lancaster, Pennsylvania **109** G3
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Lander **108** D4
42° 50′N 108° 44′W
Lang Lang **35** D1
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Lang Mountains **93** K3
Langsa **70** A3 *4° 40′N 97° 58′E*
Lang Son **73** D5
21° 51′N 106° 45′E
Langzhong **79** F4
31° 35′N 105° 58′E
Lankaran **83** C4 *38° 45′N 48° 51′E*
Lansdowne House **107** J3
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Lansing **109** F4
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Lanzarote, island **98** B4
Lanzhou **79** F4 *36° 3′N 103° 47′E*
Laoag **71** D4 *18° 12′N 120° 36′E*
Lao Chi **79** F3 *22° 30′N 103° 58′E*
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8° 24′N 78° 8′W
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Larat, island **62** C2
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Laredo **110** C3 *27° 30′N 99° 30′W*
La Rioja **119** C4 *29° 25′S 66° 51′W*
Larissa **85** G2 *39° 38′N 22° 25′E*
Larkana **78** B3 *27° 34′N 68° 12′E*
La Rochelle **90** D6
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La Romana **111** F2
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Larrimah **13** D4 *15° 34′S 133° 13′E*
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Las Cruces **110** B4
32° 19′N 106° 47′W
Laselevu **61** C3 *17° 45′S 178° 7′E*
La Serena **119** B4
29° 54′S 71° 15′W
Lashkar Gah **81** E3
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Las Lomitas **117** D1
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Las Palmas **98** B4
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Las Tablas **116** A4
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Las Tunas **111** E3
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Launceston **13** E1 *41° 27′S 147° 8′E*
La Union **119** B2 *40° 17′S 73° 5′W*
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15° 34′S 144° 27′E
Laura, South Australia **43** G4
33° 11′S 138° 18′E
Laurel **110** D4 *31° 42′N 89° 8′W*
Lausanne **91** F6 *46° 32′N 6° 39′E*
Lautoka **61** B3 *17° 37′S 177° 28′E*
La Vega **111** E2 *19° 13′N 70° 31′W*
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Lavers Hill **34** C1
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Laverton **47** D3
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Lawaki **61** C3 *17° 39′S 178° 34′E*
Law-Racovita, Antarctic base **55** D3 *69° 23′S 76° 23′E*
Lawton **110** C4 *34° 36′N 98° 25′W*
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Lebowakgomo **101** D2
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Lebu **119** B3 *37° 37′S 73° 39′W*
Lecce **91** H5 *40° 22′N 18° 9′E*
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Leeton **35** E3 *34° 33′S 146° 24′E*
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Leeuwin, Cape **14** B2
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Leitchville **35** D3
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Lelingluan **62** C2 *7° 9′S 131° 36′E*
Le Mans **88** G1 *48° 0′N 0° 6′E*
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Lena Pillars Nature Park **93** N5
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Lenmalu **62** B3 *1° 45′S 130° 16′E*
Lennox Head **27** H5
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Lensk **93** L5 *60° 44′N 114° 57′E*
Leon, Mexico **110** B3
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Leon, Nicaragua **110** D2
12° 26′N 86° 53′W
Leon, Spain **90** C5
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Leongatha **35** E1
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Leonora **47** D3 *28° 53′S 121° 20′E*
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Leshan **79** F3 *29° 34′N 103° 44′E*
Lesosibirsk **93** J4
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Lesotho, kingdom **101** D1
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Leti Islands **62** B2
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Levin **65** F4 *40°37's 175°17'E*
Levuka **61** C3 *17°41's 178°50'E*
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Lewiston, Maine **109** H4 *44°6'N 70°13'W*
Lexington **109** F3 *38°3'N 84°30'W*
Leyte, island **71** D4
Lgov **89** M2 *51°42'N 35°16'E*
Lhasa **79** E3 *29°39'N 91°6'E*
Lhokseumawe **79** E1 *5°11'N 97°8'E*
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Liaoyang **77** A4 *41°17'N 123°11'E*
Liaoyuan **77** B5 *42°54'N 125°8'E*
Liard River **106** F3
Libenge **101** C5 *3°40'N 18°37'E*
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Liberia, republic **98** C2
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Lichinga **101** E3 *13°18's 35°14'E*
Lida **89** L2 *53°53'N 25°17'E*
Liebig, Mount **51** C3 *23°17's 131°22'E*
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Liege **91** F7 *50°38'N 5°35'E*
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Likasi **101** D3 *10°58's 26°47'E*
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Lillehammer **89** I4 *61°8'N 10°30'E*
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Lilydale, Tasmania **39** E3 *41°15's 147°13'E*
Lilydale, Victoria **35** D2 *37°45's 145°21'E*
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Limerick **88** E2 *52°40'N 8°37'W*
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Limmen National Park **51** E7
Limoges **84** E3 *45°50'N 1°15'E*
Limpopo River **101** E2
Linares, Chile **119** B3 *35°50's 71°35'W*
Linares, Mexico **110** C3 *24°52'N 99°34'W*
Linares, Spain **90** D4 *38°5'N 3°38'W*
Lincoln **109** E4 *40°49'N 96°41'W*
Lincoln National Park **43** E3
Linden **117** D4 *5°59'N 58°16'W*
Lindi **101** F4 *10°0's 39°42'E*
Line Islands **59** J5
Linfen **75** F3 *36°5'N 111°31'E*
Linjiang **77** B4 *41°50'N 126°56'E*
Linkoping **89** J3 *58°25'N 15°38'E*
Linkou **77** C5 *45°17'N 130°15'E*
Linton **34** C2 *37°41's 143°34'E*
Linxia **79** F4 *35°36'N 103°12'E*
Linz **85** F3 *48°19'N 14°17'E*
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Lioppa **62** B2 *7°41's 125°59'E*
Lipetsk **85** H4 *52°37'N 39°38'E*
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Lisbon **84** C2 *38°43'N 9°9'W*
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Lismore, Victoria **34** C2 *37°57's 143°20'E*
Litchfield National Park **51** C8
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Little Cayman, island **111** D2 *19°41'N 80°3'W*
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Little Desert National Park **34** B2
Little Inagua, island **111** E3 *21°30'N 72°59'W*
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Little Sandy Desert **47** D4
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Liuhe **77** B5 *42°17'N 125°43'E*
Liuzhou **75** E2 *24°17'N 109°15'E*
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Livny **91** L7 *52°25'N 37°36'E*
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Ljubljana **85** F3 *46°3'N 14°31'E*
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Llullaillaco Volcano, mountain **117** C1 *24°43's 68°32'W*
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Lobatse **101** D2 *25°13's 25°41'E*
Lobito **100** C3 *12°22's 13°32'E*
Lobo **62** C3 *3°43's 134°4'E*
Loch **35** D1 *38°22's 145°42'E*
Loch Sport **35** E1 *38°2's 147°36'E*
Lock **13** D2 *33°34's 135°45'E*
Lockhart **35** E3 *35°13's 146°43'E*
Lockhart River **23** B5 *12°47's 143°21'E*
Lockington **35** D2 *36°16's 144°32'E*
Loddon River **34** C2
Lodoni **61** C3 *17°43's 178°34'E*
Lodwar **101** E5 *3°8'N 35°34'E*
Lodz **85** G4 *51°47'N 19°27'E*
Loei **79** F2 *17°30'N 101°44'E*
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Lofoten Islands **85** F5
Logan, Mount **106** D3 *60°34'N 140°24'W*
Logan **108** C4 *41°44'N 111°50'W*
Logone River **101** C6
Logrono **90** D5 *42°28'N 2°26'W*
Loikaw **73** B5
Loire River **85** E3
Loja **116** B3 *3°59's 79°13'W*
Lokhwabe **101** D2 *24°10's 21°50'E*
Lol River **101** D5
Lomanikoro **61** C2 *18°7's 178°34'E*
Lomati **61** D1 *19°9's 179°46'E*
Lomawai **61** B2 *18°2's 177°19'E*
Lombok, island **14** B5
Lome **95** E5 *6°8'N 1°13'E*
Lome **100** B5 *6°8'N 1°13'E*
Lomza **89** K2 *53°11'N 22°5'E*
London, Canada **109** F4 *42°58'N 81°15'W*
London, United Kingdom **84** E4 *51°30'N 0°7'W*
Londonderry **88** E3 *55°0'N 7°20'W*
Londonderry, Cape **15** C4 *13°43's 126°58'E*
Londrina, Brazil **117** D1 *23°18's 51°11'W*
Long Bay **109** G3
Long Beach **108** C3 *33°47'N 119°9'W*
Longford, Tasmania **39** E3 *41°36's 147°7'E*
Longford, Victoria **35** E1 *38°10's 147°5'E*
Long Island, Bahamas **111** E3
Long Island, Papua New Guinea **63** F2
Long Island, United States of America **109** G4
Longjiang **77** A6 *47°20'N 123°11'E*
Longreach **23** B3 *23°27's 144°15'E*
Longs Peak, mountain **109** D4 *40°15'N 105°37'W*
Longview, Texas **110** C4 *32°30'N 94°44'W*
Longview, Washington **108** B4 *46°8'N 122°56'W*
Longxi **79** F4 *35°3'N 104°38'E*
Long Xuyen **70** B4 *10°23'N 105°25'E*
Lonsdale, Lake **34** C2
Looma **47** D5 *18°2's 124°9'E*
Loongana **13** C2 *30°57's 127°2'E*
Lopatka, Cape **93** P3 *50°55'N 156°39'E*
Lop Buri **70** B4 *14°48'N 100°37'E*
Lopez, Cape **100** B4 *0°36's 8°44'E*
Lop Nur, lake **75** D4
Lorca **90** D4 *37°41'N 1°42'W*
Lore **62** B2 *8°39's 127°2'E*
Lorengau **63** F3 *2°2's 147°17'E*
Lorentz National Park **62** D3
Loreto **110** A3 *26°1'N 111°21'W*
Lorient **88** F1 *47°45'N 3°22'W*
Lorne **34** C1 *38°32's 143°59'E*
Los Angeles, Chile **119** B3 *37°28's 72°22'W*
Los Angeles, United States of America **108** C3 *34°0'N 119°11'W*
Los Glaciares National Park **119** B2
Los Katios National Park **111** E1
Los Lagos **119** B3 *39°51's 72°50'W*
Los Mochis **110** B3 *25°47'N 109°0'W*
Los Roques, island **111** F2
Losuia **63** G2 *8°30's 151°5'E*
Lota **119** B3 *37°5's 73°10'W*
Louang Namtha **73** C5
Louangphrabang **79** F2 *19°53'N 102°8'E*
Louise, Lake **106** D4
Louisiade Archipelago **23** D5
Louisiana, state **110** C4
Lou Island **63** F3
Louisville **109** F3 *38°14'N 85°45'W*
Louth **27** D4 *30°32's 145°7'E*
Lovu **61** D2 *18°6's 179°20'E*
Lowell **109** G4 *42°38'N 71°19'W*
Lower Arrow Lake **108** C4
Lower California **110** B3
Lower Glenelg National Park **34** B2
Lower Hutt **65** F4 *41°12's 174°55'E*
Lower Red Lake **107** I2
Lower Tunguska River **93** K5
Low Head **39** D3 *41°4's 146°48'E*
Low Rocky Point **39** C2 *42°59's 145°30'E*
Loxton **34** B3 *34°27's 140°34'E*

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Loyalty Islands **59** **G3**
Lualaba River **101** **D4**
Luan Chau **73** **C5**
Luanda **100** **C4** *8°50'S 13°14'E*
Luanshya **101** **D3** *13°8'S 28°24'E*
Luanza **101** **D4** *8°42'S 28°42'E*
Luau **101** **D3** *10°43'S 22°14'E*
Lubango **100** **C3** *14°55'S 13°29'E*
Lubbock **110** **B4** *33°35'N 101°53'W*
Lubeck **89** **I2** *53°52'N 10°40'E*
Lublin **89** **K2** *51°15'N 22°34'E*
Lubumbashi **101** **D3** *11°41'S 27°29'E*
Lubutu **101** **D4** *0°44'S 26°35'E*
Lucknow **79** **D3** *26°51'N 80°55'E*
Luderitz **101** **C2** *26°39'S 15°10'E*
Ludhiana **79** **C4** *30°56'N 75°52'E*
Luena **101** **C3** *11°47'S 19°54'E*
Lufkin **110** **C4** *31°20'N 94°44'W*
Luga **89** **M3** *58°44'N 29°50'E*
Luhansk **85** **B3** *48°34'N 39°20'E*
Luiana **101** **D3** *17°22'S 23°0'E*
Luitpoold Coast **57** **P3**
Lulea **89** **K5** *65°36'N 22°10'E*
Luleburgaz **83** **A5** *41°24'N 27°21'E*
Lumbala Nguimbo **101** **D3** *14°6'S 21°26'E*
Lumholtz National Park **23** **C4**
Lumi **62** **E3** *3°29'S 141°58'E*
Lumphat **73** **D3** *13°30'N 106°59'E*
Lumsden **65** **C2** *45°44'S 168°27'E*
Lundu **71** **C3** *1°41'N 109°51'E*
Luohe **75** **F3** *33°34'N 114°2'E*
Luoyang **75** **F3** *34°41'N 112°28'E*
Lupanshui **79** **F3** *26°36'N 104°50'E*
Lusaka **101** **D3** *15°25'S 28°17'E*
Lusambo **101** **D4** *4°58'S 23°26'E*
Lut Desert **83** **D4**
Luton **88** **F2** *51°53'N 0°25'W*
Lutsk **89** **K2** *50°45'N 25°20'E*
Luwuk **71** **D2** *0°56'S 122°47'E*
Luxembourg, kingdom **89** **H1**
Luxembourg, Luxembourg **89** **H1** *49°37'N 6°8'E*
Luxor **83** **B3** *25°42'N 32°39'E*
Luzern **91** **F6** *47°3'N 8°17'E*
Luzhou **79** **F3** *28°53'N 105°23'E*
Luzon, island **71** **D4**
Luzon Strait **71** **D4**
Lvov **85** **G3** *49°50'N 24°2'E*
Lyakhov Islands **93** **O6**
Lyndhurst **43** **G5** *30°17'S 138°21'E*
Lyndoch **43** **G3** *34°36'S 138°53'E*
Lynn Lake **107** **I3** *56°51'N 101°3'W*
Lyon **85** **E3** *45°46'N 4°50'E*
Lysychansk **91** **L6** *48°55'N 38°26'E*

M

Ma'an **99** **G5** *30°12'N 35°44'E*
Maatsuyker Island **39** **D1**
McAlester **109** **E3** *34°56'N 95°46'W*
McAllen **110** **C3** *26°12'N 98°14'W*
Macapa **117** **D4**
Macarthur **34** **C1** *38°2'S 142°0'E*
McArthur River **51** **E6**
Macas **116** **B3** *2°19'S 78°7'W*
Macau **71** **C5** *22°12'N 113°33'E*
M'Clure Strait **107** **G5**
Macdonald, Lake **51** **B3**
Macdonnell Ranges **15** **D3**
Macedon, Mount **35** **D2** *37°23'S 144°35'E*
Macedonia, republic **85** **G3**
Maceio **117** **F3** *9°37'S 35°44'W*
Macenta **98** **C2** *8°33'N 9°29'W*
McGrath **106** **C4** *62°57'N 155°36'W*
MacGregor **31** **D5** *35°13'S 149°1'E*
Macgregor Peak **39** **F2** *42°59'S 147°57'E*
Machala **116** **B3** *3°16'S 79°58'W*
Machilipatnam **79** **D2** *16°12'N 81°11'E*
Machu Picchu, Antarctic base **55** **P2** *62°5'S 58°28'W*
Machupicchu Sanctuary **116** **B2**
Macintyre River **27** **F5**
Mackay, Lake **51** **B3**
Mackay **13** **E3** *21°9'S 149°9'E*
McKeahne, Mount **31** **C3** *35°35'S 148°52'E*
Mackenzie Bay **106** **E4**
Mackenzie King Island **107** **G5**
Mackenzie Mountains **105** **F8**
Mackenzie River **106** **F4**
McKinley, Mount **106** **C4** *63°4'N 151°0'W*
Macksville **27** **H4** *30°42'S 152°55'E*
Maclean **27** **H5** *29°27'S 153°12'E*
Macleod, Lake **47** **B4**
McMinns Lagoon **62** **C1** *12°32'S 131°3'E*
McMurdo, Antarctic base **55** **J3** *77°51'S 166°40'E*
Macon **111** **D4** *32°51'N 83°38'W*
Macquarie, Lake **27** **G3**
Macquarie Harbour **39** **C2** *42°19'S 145°23'E*
Macquarie Island **57** **I2**
Macquarie Island, Antarctic base **55** **H2** *54°30'S 158°57'E*
Mac Robertson Land **57** **C3**
Macuata-i-wai, island **61** **C4** *16°25'S 179°5'E*
Macumba River **43** **F7**
Madagascar, republic **101** **F2**
Madang **63** **F2** *5°13'S 145°47'E*
Madeira, island **94** **C8**
Madeira River **117** **C3**
Madhya Pradesh, state **79** **C3**
Madison **109** **F4** *43°4'N 89°24'W*
Madiun **71** **C2** *7°38'S 111°31'E*
Madre de Dios River **116** **B2**
Madrid **84** **D3** *40°24'N 3°41'W*
Madurai **67** **G3** *9°55'N 78°7'E*
Madura Island **71** **C2**
Maebashi **77** **E3** *36°24'N 139°4'E*
Mae Hong Son **73** **B5** *19°18'N 97°58'E*
Mae Sot **73** **B4** *16°43'N 98°34'E*
Maffra **35** **E2** *37°58'S 146°59'E*
Mafia Island **101** **F4**
Magadan **93** **P4** *59°34'N 150°49'E*
Magamo **62** **C3** *0°57'S 131°47'E*
Magdalena **110** **A4** *30°37'N 111°3'W*
Magdalena River **116** **B4**
Magdeburg **89** **I2** *52°8'N 11°37'E*
Magellan, Strait of **119** **C1**
Magnetic Island **23** **C4**
Magnitogorsk **85** **J4** *53°25'N 58°59'E*
Magway **75** **D2** *20°9'N 94°55'E*
Mahabad **83** **C4** *36°46'N 45°43'E*
Mahajanga **101** **F3** *15°40'S 46°21'E*
Mahalapye **101** **D2** *23°6'S 26°49'E*
Maharashtra, state **79** **C3**
Maha Sarakham **73** **C4** *16°11'N 103°18'E*
Mahe **101** **G4**
Mahia Peninsula **65** **H5** *39°11'S 177°54'E*
Mahilyow **85** **H4** *53°54'N 30°19'E*
Maiduguri **99** **E3** *11°51'N 13°9'E*
Mai-Ndombe, Lake **101** **C4**
Maine, state **109** **H4**
Maine, Gulf of **109** **H4**
Maintirano **101** **F3** *18°4'S 44°1'E*
Maipo, mountain **119** **C3** *34°14'S 69°50'W*
Maitland, New South Wales **13** **F2** *32°43'S 151°33'E*
Maitland, South Australia **43** **F3** *34°22'S 137°40'E*
Maitri, Antarctic base **55** **A3** *70°46'S 11°44'E*
Maizuru **77** **D3** *35°27'N 135°20'E*
Majene **71** **C2** *3°32'S 119°58'E*
Majura, Mount **31** **E5** *35°14'S 149°11'E*
Majuro **59** **F6** *7°6'N 171°23'E*
Makale **71** **C2** *3°6'S 119°51'E*
Makarov **77** **F6** *48°38'N 142°48'E*
Makassar **71** **C2** *5°8'S 119°26'E*
Makassar Strait **71** **C2**
Makeni **98** **B2** *8°53'N 12°3'W*
Makgadikgadi Pan **97** **G2**
Makhachkala **85** **I3** *42°59'N 47°30'E*
Makhambet **81** **D4** *47°40'N 51°35'E*
Maki **62** **C3** *3°19'S 134°14'E*
Makinsk **92** **H4** *52°38'N 70°25'E*
Makira, island **63** **I1**
Makogai, island **61** **D3** *17°27'S 178°58'E*
Makokou **100** **C5** *0°34'N 12°52'E*
Makongai **61** **C3** *17°26'S 178°58'E*
Makoua **100** **C4**
Malabo **100** **B5** *3°45'N 8°47'E*
Malacca, Strait of **73** **B1**
Malacca **70** **B3** *2°12'N 102°15'E*
Maladzyechna **89** **L2** *54°19'N 26°52'E*
Malaga **84** **D2** *36°43'N 4°25'W*
Malaita, island **63** **I2**
Malakal **83** **B1** *9°32'N 31°39'E*
Malake, island **61** **C3** *17°19'S 178°9'E*
Malakula, island **59** **F4**
Malalaua **63** **F2** *8°0'S 146°10'E*
Malang **71** **C2** *7°59'S 112°36'E*
Malanje **101** **C4** *9°32'S 16°20'E*
Malargue **119** **C3** *35°28'S 69°35'W*
Malatya **85** **H2** *38°22'N 38°18'E*
Malawi, Lake **101** **E3**
Malawi, republic **101** **E3**
Malayer **83** **C4** *34°19'N 48°51'E*
Malay Peninsula **70** **B3**
Malaysia, republic **73** **C1**
Malden, island **59** **J5**
Maldives, republic **79** **C1**
Maldon **34** **C2** *37°0'S 144°4'E*
Maldonado **119** **D3** *34°55'S 54°58'W*
Male **67** **F2** *4°10'N 73°30'E*
Malegaon **79** **C3** *20°34'N 74°32'E*
Maleny **23** **D2** *26°46'S 152°51'E*
Malheur Lake **108** **C4**
Mali, island **61** **D4** *16°20'S 179°22'E*
Mali, republic **90** **C1**
Maliana **62** **B2** *9°0'S 125°13'E*
Malkumba / Coongie Lakes National Park **43** **H7**
Mallacoota **35** **F2** *37°34'S 149°45'E*
Mallawi **83** **B3** *27°44'N 30°50'E*
Mallee **34** **B3**
Mallee Cliffs National Park **34** **C3**
Mallorca, island **86** **E2**
Malmo **85** **F4** *55°35'N 13°2'E*
Malmsbury **35** **D2** *37°11'S 144°23'E*
Malolo, island **61** **B3** *17°45'S 177°11'E*
Maloti-Drakensberg Park **101** **E2**
Malpelo Fauna and Flora Sanctuary **116** **A4**
Malpelo Island **116** **A4**
Malta, island **87** **F2**
Malta, republic **85** **F2**
Maluku **62** **C3**

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Maluku Sea **62** B3
Mamanuca Group, island group **61** A3
Mamberamo **62** D3
1°31′S 137°52′E
Mamberamo River **62** D3
Mammoth Cave National Park **109** F3
Mamore River **117** C2
Man **98** C2 *7°24′N 7°33′W*
Mana, island **61** B3
17°41′S 177°7′E
Manado **71** D3 *1°29′N 124°51′E*
Managua, Lake **111** D2
Managua **111** D2 *12°9′N 86°16′W*
Manama **83** D3 *26°14′N 50°35′E*
Manangatang **34** C3
35°3′S 142°53′E
Mananjary **101** F2
21°13′S 48°20′E
Mana Pools National Park **101** E3
Manapouri, Lake **65** B2
Manar, Mount **83** C2
14°0′N 44°25′E
Manaus **117** D3 *3°6′S 60°0′W*
Manawatu River **65** F4
Manbij **83** B4 *36°32′N 37°57′E*
Manchester, United Kingdom **84** D4 *53°30′N 2°15′W*
Manchester, United States of America **109** G4
43°0′N 71°27′W
Manchuria **69** I4
Manchurian Plain **77** A5
Mandala, mountain **62** E3
4°43′S 140°19′E
Mandalay **79** E3 *21°58′N 96°5′E*
Mandalgovi **75** E4
45°45′N 106°16′E
Mandeb, Strait of **83** C2
Mandor **71** B3 *0°19′N 109°20′E*
Mandritsara **101** F3
15°50′S 48°49′E
Mandurah **12** B2 *32°31′S 115°45′E*
Mandya **79** C2 *12°34′N 76°55′E*
Mangaia, island **59** J3
Mangalore **79** C2
12°54′N 74°51′E
Mangoky River **101** F2
Manguri **13** D3 *28°58′S 134°23′E*
Manicore **117** C3 *5°49′S 61°18′W*
Manihiki, island **59** J4
Manila **71** D4 *14°36′N 120°59′E*
Manilla **27** G4 *30°45′S 150°43′E*
Maningrida **51** D8 *12°3′S 134°13′E*
Manipur, state **79** E3
Manisa **83** A4 *38°38′N 27°26′E*
Manitoba, province **109** E5
Manitoba, Lake **109** E5
Manizales **116** B4 *5°4′N 75°31′W*
Manja **101** F2 *21°26′S 44°20′E*
Manjimup **47** C2 *34°14′S 116°9′E*
Manna **70** B2 *4°29′S 102°54′E*
Mannar, Gulf of **79** C1
Mannheim **89** H1 *49°30′N 8°28′E*
Mannum **43** G3 *34°55′S 139°18′E*
Manokwari **62** C3 *0°52′S 134°4′E*
Manono **101** D4 *7°18′S 27°27′E*
Manovo-Gounda St Floris National Park **101** D5
Manpo **77** B4 *41°9′N 126°18′E*
Mansa **101** D3 *11°12′S 28°53′E*
Mansehra **79** C4 *34°21′N 73°12′E*
Mansel Island **107** J4
Mansfield, Australia **35** E2
37°3′S 146°5′E
Mansfield, United States of America **109** F4
40°45′N 82°31′W
Manta **116** A3 *0°59′S 80°44′W*
Manukau, New Zealand **65** F6
37°0′S 174°53′E
Manukau Harbour **65** E6
37°3′S 174°44′E
Manu National Park **116** B2
Manus, island **63** F3
Manzanillo, Cuba **111** E3
20°21′N 77°7′W
Manzanillo, Mexico **110** B2
19°3′N 104°19′W
Manzhouli **75** F4
49°36′N 117°26′E
Mao **99** E3 *14°7′N 15°19′E*
Maoke Mountains **62** D3
Maoming **71** B5 *21°55′N 110°52′E*
Mapai **101** E2 *22°51′S 31°58′E*
Mappi **62** D2 *7°3′S 139°25′E*
Maprik **62** E3 *3°38′S 143°3′E*
Maputo **101** E2 *25°57′S 32°35′E*
Maputo Bay **101** E2
Maqat **81** D4 *47°39′N 53°20′E*
Maquan River **79** D3
Maraba **117** E3 *5°21′S 49°7′W*
Maracaibo, Colombia **116** B5
10°44′N 71°40′W
Maracaibo, Lake **115** D7
Maracaibo, Venezuela **111** E2
10°44′N 71°40′W
Maradah **91** H2 *29°14′N 19°13′E*
Maradi **98** D3 *13°29′N 7°6′E*
Maragheh **83** C4
37°25′N 46°13′E
Marajo Bay **117** E3
Marajo Island **117** E3
Maralal **101** E5 *1°7′N 36°41′E*
Maralinga **43** C5 *30°9′S 131°35′E*
Marambio, Antarctic base **55** P3
64°14′S 56°37′W
Maranon River **116** B3
Marathon **109** F4
48°45′N 86°22′W
Marbella **90** C4 *36°31′N 4°53′W*
Marble Bar **47** C4
21°10′S 119°45′E
Mar Chiquita Lagoon **119** C3
Marcos Bay **117** E3
Mardan **79** C4 *34°12′N 72°2′E*
Mar del Plata **119** D3
38°0′S 57°35′W
Mardie **47** C4 *21°11′S 115°58′E*
Mardin **83** C4 *37°19′N 40°45′E*
Mare, island **59** F3
Mareeba **23** C4 *16°60′S 145°25′E*
Margaret River **47** B2
33°57′S 115°4′E
Margarita, island **111** F2
10°59′N 64°3′W
Margate **39** E1 *43°2′S 147°16′E*
Margo Desert **78** B4
Marguerite Bay **57** O3
Mari **62** E2 *9°8′S 141°36′E*
Maria Elena, Chile **117** C1
22°21′S 69°40′W
Maria Island **39** F2
Maria Island National Park **39** F2
Mariana Trench **58** D7
Marias Islands **110** B3
Mariato, Point **111** E1
7°13′N 80°53′W
Maribor **91** H6 *46°32′N 15°39′E*
Maridi **101** E5 *4°55′N 29°29′E*
Marie Byrd Land **57** M3
Mariental **101** C2 *24°37′S 17°58′E*
Marietta **111** D4 *33°57′N 84°33′W*
Marinette **109** F4
45°6′N 87°38′W
Maringa **117** D1 *23°25′S 51°56′W*
Marion Bay **39** F2
42°48′S 147°54′E
Mario Zucchelli, Antarctic base **55** J3 *74°42′S 164°7′E*
Maritsa River **91** J5
Mariupol **85** H3 *47°6′N 37°33′E*
Marka **101** F5 *1°47′N 44°51′E*
Marla **43** D7 *27°18′S 133°37′E*
Marlo **35** F2 *37°48′S 148°32′E*
Maroantsetra **101** F3
15°26′S 49°44′E
Maromokotro, mountain **101** G3
13°59′S 49°3′E
Maroochydore **23** D2
26°40′S 153°6′E
Maroua **100** C6 *10°36′N 14°19′E*
Marovoay **101** F3 *16°6′S 46°38′E*
Marquesas Islands **59** L5
Marquette **109** F4
46°33′N 87°24′W
Marrah Mountains **99** F3
Marrakesh **94** C8 *31°38′N 8°0′W*
Marree **43** G6 *29°39′S 138°4′E*
Marrupa **101** E3 *13°12′S 37°30′E*
Marsabit **101** E5 *2°20′N 37°59′E*
Marsala **91** G4 *37°48′N 12°26′E*
Marseille **85** E3 *43°18′N 5°22′E*
Marshall Bennett Islands **63** G2
Marshall Islands, republic **59** F7
Martaban, Gulf of **73** B4
Martapura, Borneo **71** C2
3°25′S 114°50′E
Martapura, Sumatra **70** B2
4°20′S 104°21′E
Martinique, dependency **111** G2
Marton **65** F4 *40°5′S 175°22′E*
Maru, island **62** C2
6°56′S 131°29′E
Marv Dasht **83** D3
29°48′N 52°49′E
Mary **78** B4 *37°36′N 61°50′E*
Maryborough, Queensland **13** F3 *25°33′S 152°43′E*
Maryborough, Victoria **34** C2
37°3′S 143°44′E
Maryland, state **109** G3
Mary River National Park **51** C8
Marysville **35** D2
37°31′S 145°45′E
Marzuq **99** E4 *25°54′N 13°54′E*
Masan **77** C3 *35°13′N 128°35′E*
Mascara **90** E4 *35°24′N 0°8′E*
Masela, island **62** C2
8°8′S 129°47′E
Maseru **101** D2 *29°19′S 27°29′E*
Mashhad **78** A4 *36°16′N 59°34′E*
Masira, Gulf of **83** D2
Masirah, mountain **83** D3
20°25′N 58°47′E
Masjed Soleyman **99** I5
31°59′N 49°18′E
Mason Bay **65** B1
46°55′S 167°45′E
Mason City **109** E4
43°9′N 93°12′W
Massachusetts, state **109** H4
Massawa **83** B2 *15°37′N 39°27′E*
Massif Central, plateau **86** E3
Masterton **65** F4
40°57′S 175°39′E
Masvingo **101** E2 *20°4′S 30°49′E*
Maswaar, island **62** C3
2°5′S 134°22′E
Matacawa Levu, island **61** B4
16°57′S 177°21′E
Matadi **100** C4 *5°49′S 13°27′E*
Matagalpa **111** D2
12°55′N 85°55′W
Matagami **109** G4
49°45′N 77°38′W
Matamoros **110** C3
25°53′N 97°30′W
Matanuku, island **61** C1
19°10′S 178°7′E
Matanzas **111** D3 *23°2′N 81°35′W*
Matara **79** D1 *5°57′N 80°33′E*
Mataranka **51** D7 *14°55′S 133°4′E*
Mataro **90** E5 *41°32′N 2°27′E*
Matehuala **110** B3
23°40′N 100°39′W
Mathoura **35** D3
35°49′S 144°54′E
Mathura **79** C3 *27°30′N 77°40′E*
Mato Grosso **117** D2
15°0′S 59°57′W
Matruh **83** A4 *31°21′N 27°14′E*
Matsue **77** D3 *35°28′N 133°4′E*
Matsumae **77** E4 *41°32′N 140°5′E*
Matsumoto **77** E3
36°14′N 137°58′E
Matsuyama **77** D2
33°51′N 132°46′E
Matterhorn, mountain **87** E3
46°6′N 7°43′E
Matuku, island **61** D1
19°11′S 179°46′E

Entry / **Page** / **REF.** / *LAT.°′* / *LONG.°′*

Maturin **111** **F1** *9°45′N 63°10′W*
Maues **117** **D3** *3°23′S 57°43′W*
Maui, island **59** **J8**
Maumere **71** **D2** *8°37′S 122°13′E*
Maun **101** **D3** *19°59′S 23°25′E*
Maurice (Carle-Thulka), Lake **43** **C6**
Mauritania, republic **98** **B3**
Mauritius, island **97** **J2**
Mauritius, republic **101** **G3**
Maury Bay **57** **G3**
Mavinga **101** **C3** *15°47′S 20°22′E*
Mavis Reef **47** **D5**
Mawhai Point **65** **H5**
Mawlamyine **79** **E2** *16°30′N 97°40′E*
Mawson, Antarctic base **55** **C3** *67°36′S 62°53′E*
Mawson Coast **57** **D3**
Mawsynram **69** **G3** *25°16′N 91°21′E*
Maxixe **101** **E2** *23°52′S 35°23′E*
May, Cape **109** **G3** *37°12′N 75°56′W*
Mayaguana, island **111** **E3** *22°23′N 73°3′W*
Mayaguez **111** **F2** *18°12′N 67°8′W*
Maydena **39** **D2** *42°45′S 146°38′E*
Maydh **83** **C2** *10°59′N 47°6′E*
Maykop **85** **I3** *44°37′N 40°7′E*
Mayor Island **65** **G6** *37°17′S 176°15′E*
Mayotte, dependency **101** **F3**
May Pen **111** **E2** *17°58′N 77°14′W*
Mayumba **100** **B4** *3°25′S 10°39′E*
Mazabuka **101** **D3** *15°52′S 27°46′E*
Mazar-e Sharif **78** **B4** *36°42′N 67°6′E*
Mazatan **110** **B3** *29°1′N 110°8′W*
Mazatenango **110** **C2** *14°32′N 91°31′W*
Mazatlan **110** **B3** *23°13′N 106°25′W*
Mazong Shan, mountain **75** **D4** *41°31′N 97°7′E*
Mazyr **89** **L2** *52°3′N 29°16′E*
Mbabane **101** **E2** *26°19′S 31°8′E*
Mbaiki **101** **C5** *3°52′N 18°0′E*
Mbala **101** **E4** *8°50′S 31°22′E*
Mbalmayo **99** **E2** *3°31′N 11°30′E*
Mbambawa **62** **D3** *3°41′S 137°31′E*
Mbandaka **101** **C5**
Mbanza-Congo **100** **C4** *6°16′S 14°14′E*
Mbarara **101** **E4** *0°36′S 30°39′E*
Mbatiri **61** **B2** *18°5′S 177°20′E*
Mbeya **101** **E4** *8°53′S 33°26′E*
Mbuinitusu **63** **H2** *8°30′S 157°54′E*
Mbuji-Mayi **101** **D4** *6°9′S 23°36′E*
Mead, Lake **108** **C3**
Meadow Lake **109** **D5** *54°8′N 108°26′W*

Mecca **83** **C3** *21°26′N 39°49′E*
Medan **70** **A3** *3°35′N 98°39′E*
Medani **99** **G3** *14°24′N 33°31′E*
Medea **90** **E4** *36°16′N 2°46′E*
Medellin **111** **E1** *6°17′N 75°35′W*
Medford **108** **B4** *42°20′N 122°52′W*
Medicine Hat **108** **D5** *50°2′N 110°41′W*
Medina **83** **C3** *24°30′N 39°35′E*
Mediterranean Sea **85** **F2**
Mednogorsk **81** **D5** *51°25′N 57°35′E*
Medvezhya, Mount **77** **E6** *47°25′N 137°51′E*
Meekatharra **12** **B3** *26°36′S 119°29′E*
Meeniyan **35** **E1** *38°35′S 146°1′E*
Meerut **79** **C3** *29°0′N 77°42′E*
Meghalaya, state **79** **E3**
Meharry, Mount **47** **C4** *22°59′S 119°35′E*
Meiganga **100** **C5** *6°31′N 14°17′E*
Meiktila **73** **A5**
Mekele **83** **B2** *13°30′N 39°28′E*
Meknes **90** **C3** *33°54′N 5°34′W*
Mekong Delta, depression **73** **D2**
Mekong River **79** **F3**
Melaleuca **39** **D1** *43°25′S 146°10′E*
Melanesia, island group **59** **F4**
Melbourne, Australia **35** **D2** *37°49′S 144°58′E*
Melbourne, United States of America **111** **E3** *28°5′N 80°36′W*
Melekeok **71** **E3** *7°29′N 134°38′E*
Melezes River **107** **K3**
Melilla **95** **D8** *35°18′N 2°57′W*
Melitopol **91** **K6** *46°50′N 35°23′E*
Melo **119** **D3** *32°22′S 54°11′W*
Melton **13** **E2** *37°41′S 144°34′E*
Melun **89** **G1** *48°32′N 2°40′E*
Melut **83** **B2** *10°26′N 32°12′E*
Melville Bay **51** **F9**
Melville, Cape **63** **F1** *14°14′S 144°33′E*
Melville Island **51** **C9**
Melville Peninsula **107** **J4**
Memphis **109** **E3** *35°7′N 90°0′W*
Mendel, Antarctic base **55** **P3** *63°48′S 57°52′W*
Mendi **62** **E2** *6°9′S 143°39′E*
Mendocino **108** **B3** *39°18′N 123°48′W*
Mendocino, Cape **108** **B4** *40°21′N 124°19′W*
Mendoza **119** **C3** *32°53′S 68°49′W*
Mengzi **73** **C6**
Menindee **26** **C3** *32°24′S 142°25′E*
Menindee, Lake **26** **B3**
Meningie **43** **G3** *35°41′S 139°20′E*

Menongue **101** **C3** *14°40′S 17°42′E*
Menorca, island **87** **E3**
Menyamya **63** **F2** *7°11′S 145°59′E*
Merauke **23** **B6** *8°30′S 140°24′E*
Merbein **34** **B3** *34°10′S 142°4′E*
Merced **108** **B3** *37°18′N 120°29′W*
Mercedes **119** **D3** *33°16′S 58°2′W*
Mercury Islands **65** **G6** *36°36′S 175°51′E*
Meredith **35** **D2** *37°51′S 144°5′E*
Mereeg **101** **F5** *3°46′N 47°18′E*
Merida, Mexico **110** **C3** *20°58′N 89°37′W*
Merida, Venezuela **111** **E1** *8°24′N 71°8′W*
Merida Mountains **111** **E1**
Meridian **110** **D4** *32°22′N 88°42′W*
Merimbula **35** **G2** *36°53′S 149°55′E*
Merino **34** **B2** *37°43′S 141°33′E*
Merkus, Cape **63** **F2** *5°55′S 148°54′E*
Meroo National Park **27** **G2**
Merowe **83** **B2** *18°29′N 31°49′E*
Merredin **47** **C2** *31°29′S 119°16′E*
Merrigum **35** **D2** *36°22′S 145°8′E*
Merriwa **27** **G3** *32°8′S 150°21′E*
Mersey River **39** **D3**
Mesa **110** **A4** *33°25′N 111°44′W*
Messina **85** **F2** *38°12′N 15°33′E*
Meta Incognita Peninsula **107** **L4**
Metairie **110** **C4** *29°59′N 90°9′W*
Meta River **111** **F1**
Meteiai **63** **G3** *2°28′S 150°23′E*
Methven **65** **D3** *43°37′S 171°37′E*
Metz **85** **E3** *49°7′N 6°11′E*
Meulaboh **70** **A3** *4°8′N 96°7′E*
Mexicali, Mexico **110** **A4** *32°39′N 115°29′W*
Mexicali, United States of America **108** **C3** *32°39′N 115°29′W*
Mexico, Gulf of **110** **D3**
Mexico, republic **110** **B3**
Mexico City **110** **C2** *19°27′N 99°8′W*
Meymaneh **78** **B4** *35°56′N 64°46′E*
Mezen **89** **O5** *65°51′N 44°14′E*
Mezen River **89** **O5**
Miami **111** **D3** *25°47′N 80°14′W*
Miandrivazo **101** **F3** *19°31′S 45°28′E*
Mianyang **79** **F4** *31°28′N 104°46′E*
Miass **92** **G4** *55°0′N 60°6′E*
Michelago **31** **E2** *35°43′S 149°10′E*
Michelago, Mount **31** **E2** *35°40′S 149°11′E*
Michigan, state **109** **F4**
Michigan, Lake **109** **F4**
Micronesia, island group **59** **E7**

Middelburg **101** **D2** *25°46′S 29°28′E*
Middle Andaman, island **79** **E2**
Middlemount **23** **C3** *22°49′S 148°42′E*
Middlesbrough **88** **F2** *54°35′N 1°14′W*
Midland **110** **B4** *32°2′N 102°6′W*
Midway, island group **59** **H8**
Miguasha Park **109** **H4**
Mikhalkino **93** **Q5** *69°25′N 161°29′E*
Mikhaylovka **80** **C5** *50°4′N 43°13′E*
Mikuni Range **77** **E3**
Milagro **116** **B3** *2°11′S 79°36′W*
Milan **85** **E3** *45°28′N 9°12′E*
Mildura **13** **E2** *34°11′S 142°9′E*
Miles **23** **C2** *26°40′S 150°11′E*
Miles City **109** **D4** *46°25′N 105°50′W*
Milford Sound **65** **B2** *44°40′S 167°56′E*
Milikapiti **62** **C1** *11°25′S 130°40′E*
Milingimbi **51** **E8** *12°6′S 134°55′E*
Millerovo **91** **M6** *48°56′N 40°24′E*
Millicent **34** **B2** *37°36′S 140°21′E*
Millstream–Chichester National Park **47** **C4**
Milne Bay **63** **G1**
Milton **65** **C1** *46°6′S 169°57′E*
Milwaukee **109** **F4** *43°3′N 87°55′W*
Minahassa Peninsula **71** **D3**
Minatitlan **110** **C2** *17°59′N 94°32′W*
Mindanao, island **71** **D3**
Mindona, Lake **26** **C3**
Mindoro, island **71** **D4**
Mingan **107** **L3** *50°18′N 64°1′W*
Minigwal, Lake **47** **D3**
Minim, Lake **119** **D3**
Minlaton **43** **F3** *34°46′S 137°36′E*
Minneapolis **109** **E4** *44°59′N 93°15′W*
Minnesota, state **109** **E4**
Minnesota River **109** **E4**
Minot **109** **D4** *48°14′N 101°18′W*
Minsk **85** **G4** *53°54′N 27°34′E*
Mintabie **43** **D7** *27°19′S 133°18′E*
Minxian **79** **F4** *34°26′N 104°2′E*
Minyip **34** **C2** *36°28′S 142°35′E*
Mios Num, island **62** **D3** *1°29′S 135°12′E*
Mirbat **83** **D2** *17°0′N 54°42′E*
Mirboo North **35** **E1** *38°24′S 146°10′E*
Miri **71** **C3** *4°24′N 113°59′E*
Mirim, Lake **115** **F3**
Mirny, Antarctic base **55** **E3** *66°33′S 93°1′E*
Mirnyy **93** **L5** *62°32′N 113°58′E*
Mirput Khas **78** **B3** *25°32′N 69°1′E*
Mirzapur **79** **D3** *25°9′N 82°34′E*
Mishan **77** **D5** *45°33′N 131°53′E*

Misima Island **63** **G1** *10°40′S 152°46′E*
Miskolc **91** **I6** *48°6′N 20°47′E*
Misool, island **62** **B3** *1°51′S 130°9′E*
Misratah **91** **H3** *32°23′N 15°6′E*
Mississippi, state **110** **D4**
Mississippi River **110** **C4**
Missoula **108** **C4** *46°52′N 113°0′W*
Missouri, state **109** **E3**
Missouri River **108** **C4**
Mistaken Point **107** **M2**
Mistassini, Lake **109** **G5**
Mistissini **109** **G5** *50°25′N 73°52′W*
Mita, Point **110** **B3** *20°46′N 105°32′W*
Mitchell, Australian Capital Territory **31** **D5** *35°13′S 149°8′E*
Mitchell, Mount **109** **F3** *35°46′N 82°16′W*
Mitchell, Queensland **23** **C2** *26°29′S 147°58′E*
Mitchell Plateau **47** **E6**
Mitchell River **35** **E2**
Mitchell River National Park **35** **E2**
Mitilini **83** **A4** *39°7′N 26°33′E*
Mito **77** **F3** *36°22′N 140°29′E*
Mittagong **27** **G2** *34°27′S 150°27′E*
Mitta Mitta River **35** **E2**
Mitu **116** **B4** *1°12′N 70°10′W*
Miyake Island **77** **F2** *34°4′N 139°32′E*
Miyako **77** **F4** *39°38′N 141°57′E*
Miyakonojo **77** **C2** *31°43′N 131°3′E*
Miyazaki **77** **C2** *31°55′N 131°25′E*
Mizdah **91** **G3** *31°26′N 12°59′E*
Mizoram, state **79** **E3**
Mizuho, Antarctic base **55** **C3** *70°42′S 44°20′E*
Moa Island **62** **E1** *10°8′S 142°15′E*
Moala, island **61** **D2** *18°35′S 179°53′E*
Moala Group **61** **D2**
Moama **35** **D2** *36°7′S 144°45′E*
Moanda **100** **C4** *1°34′S 13°12′E*
Moba **101** **D4** *7°4′S 29°43′E*
Mobile **110** **D4** *30°41′N 88°3′W*
Mobridge **109** **D4** *45°32′N 100°26′W*
Mocambique **101** **F3** *15°2′S 40°41′E*
Mocimboa **101** **F3** *11°19′S 40°21′E*
Mocuba **101** **E3** *16°51′S 38°16′E*
Modena **91** **G5** *44°39′N 10°55′E*
Modesto **108** **B3** *37°39′N 120°59′W*
Moe **35** **E1** *38°11′S 146°16′E*
Moehau, Mount **65** **G6** *36°32′S 175°23′E*
Mogadishu **101** **F5** *2°4′N 45°22′E*
Mogocha **75** **F5** *53°44′N 119°46′E*
Mohembo **101** **D3** *18°18′S 21°48′E*
Mo i Rana **89** **I5** *66°19′N 14°10′E*
Mojave Desert **105** **H5**
Mokoan, Lake **35** **E2**
Mokpo **77** **B3** *34°48′N 126°24′E*
Molde **89** **H4** *62°45′N 7°11′E*
Moldova, republic **85** **G3**
Mole Creek **39** **D3** *41°33′S 146°24′E*
Molepolole **101** **D2** *24°24′S 25°31′E*
Mollendo **116** **B2** *17°1′S 72°1′W*
Molodyozhnaya, Antarctic base **55** **C3** *67°40′S 45°52′W*
Molokai, island **59** **J8**
Molong **27** **F3** *33°5′S 148°52′E*
Molonglo, Mount **31** **E4** *35°28′S 149°19′E*
Molonglo River **31** **F3**
Molu, island **62** **C2** *6°43′S 131°36′E*
Moluccas, island group **62** **B3**
Mombasa **101** **F4** *4°2′S 39°41′E*
Mombetsu **77** **F5** *44°24′N 143°14′E*
Momi **61** **B3** *17°55′S 177°18′E*
Monaco, kingdom **85** **E3** *43°44′N 7°24′E*
Mona Passage **111** **F2**
Monarch Butterfly Biosphere Reserve **110** **B2**
Monchegorsk **89** **M5** *67°56′N 32°50′E*
Monclova **110** **B3** *26°54′N 101°25′W*
Moncton **107** **L2** *46°5′N 64°46′W*
Monga National Park **27** **F2**
Mongo **99** **E3** *12°11′N 18°42′E*
Mongolia, republic **75** **E4**
Mongu **101** **D3** *15°17′S 23°7′E*
Monroe **110** **C4** *32°31′N 92°7′W*
Monrovia **98** **B2** *6°19′N 10°48′W*
Montana, state **108** **D4**
Monte Bello Island **47** **B4**
Monte Cristi **111** **E3** *19°52′N 71°39′W*
Montego Bay **111** **E2** *18°28′N 77°55′W*
Montemorelos **110** **C3** *25°11′N 99°50′W*
Montenegro, republic **85** **F3**
Montepuez **101** **E3** *13°7′S 39°0′E*
Monterey **106** **F1** *36°58′N 122°2′W*
Monterey Bay **108** **B3**
Monteria **111** **E1** *8°45′N 75°53′W*
Monterrey **110** **B3** *25°40′N 100°20′W*
Montes Claros **113** **G5** *16°43′S 43°52′W*
Montevideo **119** **D3** *34°51′S 56°10′W*
Montgomery **110** **D4** *32°22′N 86°17′W*
Mont-Laurier **109** **G4** *46°33′N 75°30′W*
Monto **23** **D3** *24°52′S 151°7′E*
Montpelier, Idaho **108** **C4** *42°19′N 111°18′W*
Montpelier, Vermont **109** **G4** *44°16′N 72°35′W*
Montpellier, France **85** **E3** *43°37′N 3°52′E*
Montreal **109** **G4** *45°30′N 73°35′W*
Montseratt **111** **F2**
Mont Tremblant, mountain **109** **G4** *46°15′N 74°34′W*
Mont Yapeitso, mountain **107** **L3** *52°19′N 70°27′W*
Monywa **79** **E3** *22°6′N 95°9′E*
Moomba **43** **G6** *28°6′S 140°12′E*
Moonta **43** **F3** *34°4′S 137°35′E*
Moora **47** **C2** *30°38′S 116°0′E*
Moore, Lake **47** **C3**
Moorea, island **59** **J4**
Moornanyah Lake **26** **C3**
Moosehead Lake **109** **H4**
Moose Jaw **109** **D5** *50°24′N 105°33′W*
Moosonee **109** **G5** *51°17′N 80°39′W*
Mopti **98** **C3** *14°29′N 4°11′W*
Moquegua **119** **B5** *17°11′S 70°56′W*
Moradabad **79** **C3** *28°51′N 78°45′E*
Moranbah **13** **E3** *22°0′S 148°2′E*
Moratuwa **79** **C1** *6°47′N 79°53′E*
Morawa **47** **C3** *29°13′S 116°0′E*
Moree **27** **F5** *29°28′S 149°50′E*
Morehead **62** **E2** *8°41′S 141°37′E*
Morelia **110** **B2** *19°44′N 101°11′W*
Moreton Bay **15** **F3**
Moreton Island **15** **F3**
Morgan **43** **G4** *34°2′S 139°40′E*
Morgan, Mount **31** **B2** *35°44′S 148°47′E*
Moriac **35** **D1** *38°14′S 144°10′E*
Morioka **77** **F4** *39°43′N 141°8′E*
Mornington **35** **D1** *38°13′S 145°2′E*
Mornington Island **51** **G6**
Mornington Peninsula National Park **35** **D1**
Morobe **63** **F2** *7°44′S 147°32′E*
Morocco, kingdom **84** **D2**
Morogoro **101** **E4** *6°49′S 37°40′E*
Morombe **101** **F2** *21°44′S 43°22′E*
Moron, Cuba **111** **E3** *22°7′N 78°38′W*
Moron, Mongolia **75** **E4** *49°39′N 100°9′E*
Morondava **101** **F2** *20°17′S 44°17′E*
Moroni **101** **F3** *11°42′S 43°14′E*
Morotai, island **71** **D3**
Morrinhos **117** **E2** *17°44′S 49°7′W*
Morriston, Mount **39** **E2** *42°4′S 147°44′E*
Mortlake **34** **C1** *38°5′S 142°48′E*
Morton National Park **27** **G2**
Moruya **27** **G2** *35°55′S 150°5′E*
Morwell **35** **E1** *38°14′S 146°24′E*
Moscow **85** **H4** *55°45′N 37°37′E*
Moshi **101** **E4** *3°20′S 37°20′E*
Mosquito Coast **111** **D2**
Mosquitos, Gulf of **111** **D1**
Moss **89** **I3** *59°26′N 10°40′E*
Mossel Bay **101** **D1** *34°10′S 22°8′E*
Mossendjo **100** **C4** *2°56′S 12°43′E*
Mossman **23** **C4** *16°28′S 145°22′E*
Mossoro **113** **H6** *5°11′S 37°20′W*
Moss Vale **27** **G2** *34°33′S 150°22′E*
Mostaganem **90** **E4** *35°56′N 0°5′E*
Mostar **91** **H5** *43°21′N 17°49′E*
Mosul **83** **C4** *36°21′N 43°9′E*
Moturiki, island **61** **C3** *17°46′S 178°45′E*
Moulamein **27** **D2** *35°5′S 144°2′E*
Moundou **101** **C5** *8°33′N 16°5′E*
Mountain Nile, river **101** **E5**
Mount Aspiring **65** **C2** *44°30′S 168°50′E*
Mount Barker, South Australia **43** **G3** *35°4′S 138°51′E*
Mount Barker, Western Australia **47** **C2** *34°38′S 117°40′E*
Mount Beauty **35** **E2** *36°44′S 147°11′E*
Mount Buffalo National Park **35** **E2**
Mount Ebenezer Roadhouse **51** **D2** *25°13′S 132°41′E*
Mount Eccles National Park **34** **B1**
Mount Etna **99** **E5**
Mount Field National Park **39** **D2**
Mount Gambier **13** **D2** *37°50′S 140°46′E*
Mount Hagen **63** **E2** *5°52′S 144°13′E*
Mount Huangshan **75** **F2**
Mount Isa **13** **D3** *20°43′S 139°29′E*
Mount Kaputar National Park **27** **G4**
Mount Kenya National Park **99** **G1**
Mount Magnet **12** **B3** *28°4′S 117°49′E*
Mount Morgan **23** **D3** *23°39′S 150°23′E*
Mount Richmond National Park **34** **B1**
Mount Sanqingshan National Park **75** **G2**

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Mount Warning National Park **27** **H5**
Mount William National Park **39** **F4**
Mount Woodroffe **43** **C7** *26°19′S 131°45′E*
Mount Wuyi **75** **F2**
Moura **23** **C3** *24°34′S 149°58′E*
Mouths of the Amazon, delta **115** **G7**
Mouths of the Ganges, delta **74** **C2**
Mouths of the Indus, delta **78** **B3**
Mouths of the Irrawaddy, delta **79** **E2**
Moyale **101** **E5** *3°31′N 39°3′E*
Moyen Atlas, range **90** **D3**
Moyhu **35** **E2** *36°35′S 146°23′E*
Moyobamba **116** **B3** *6°3′S 76°58′W*
Mozambique, republic **101** **E3**
Mozambique Channel **101** **F3**
Mozdok **80** **C4** *43°45′N 44°39′E*
Mpika **101** **E3** *11°50′S 31°28′E*
Mount Damavand **81** **D3** *35°57′N 52°6′E*
Mtsensk **80** **B5** *53°16′N 36°33′E*
Mtwara **101** **F3** *10°16′S 40°11′E*
Muana **61** **C2** *18°3′S 178°32′E*
Muani **61** **C1** *19°9′S 178°10′E*
Muanisolo **61** **C1** *19°2′S 178°20′E*
Mubrani **62** **C3** *0°45′S 133°29′E*
Mucusso **101** **D3** *18°1′S 21°26′E*
Mudangiang **77** **C5** *44°35′N 129°35′E*
Mudgee **27** **F3** *32°36′S 149°35′E*
Mudon **79** **E2** *16°16′N 97°43′E*
Mufulira **101** **D3** *12°33′S 28°16′E*
Mugga Quarry **31** **D4**
Mugla **83** **A4** *37°13′N 28°22′E*
Mulga Park **51** **D2** *25°54′S 131°40′E*
Mulhacen, mountain **86** **D2** *37°6′N 3°4′W*
Mulhouse **91** **F6** *47°45′N 7°21′E*
Mullewa **47** **C3** *28°32′S 115°31′E*
Mulligans Flat Nature Reserve **31** **E6**
Multan **79** **C4** *30°12′N 71°27′E*
Mulurulu Lake **26** **C3**
Mulwala, Lake **35** **E3**
Mulwala **27** **D2** *35°59′S 146°0′E*
Mumbai **79** **C2** *19°1′N 72°51′E*
Mumbwa **101** **D3** *14°59′S 27°4′E*
Mumeng **63** **F2** *6°53′S 146°33′E*
Munchon **77** **B4** *39°23′N 127°15′E*
Munga-Thirri National Park **43** **G8**
Mungindi **27** **F5** *28°59′S 149°0′E*
Mungkan Kandju National Park **23** **B5**
Mungo, Lake **26** **C3**
Mungo National Park **26** **C3**
Munich **85** **F3** *48°8′N 11°34′E*
Munku-Sardyk, mountain **75** **D5** *51°45′N 100°20′E*
Munro, Mount **39** **F4** *40°22′S 148°7′E*
Munster **89** **H2** *51°58′N 7°37′E*
Murchison **35** **D2** *36°37′S 145°13′E*
Murchison River **47** **C3**
Murcia **84** **D2** *37°59′N 1°8′W*
Murgon **23** **D2** *26°15′S 151°56′E*
Murmansk **85** **H5** *68°58′N 33°6′E*
Murom **85** **I4** *55°34′N 42°2′E*
Muroran **77** **F5** *42°21′N 140°59′E*
Muroto, Cape **77** **D2** *33°18′N 134°10′E*
Murray, Mount, Australia **31** **B2** *35°41′S 148°47′E*
Murray, Mount, Papua New Guinea **63** **E2** *6°52′S 143°59′E*
Murray Bridge **43** **G3** *35°7′S 139°16′E*
Murray–Darling Basin **15** **E2**
Murray River **34** **B3**
Murray–Sunset National Park **23** **B1**
Murray Valley National Park **35** **D3**
Murrayville **34** **B3** *35°16′S 141°11′E*
Murrumbateman **35** **F3** *34°58′S 149°2′E*
Murrumbidgee River **31** **D1**
Murrumbidgee Valley National Park **34** **C3**
Murrurundi **27** **G4** *31°46′S 150°50′E*
Murtoa **34** **C2** *36°37′S 142°28′E*
Murwillumbah **27** **H5** *28°20′S 153°24′E*
Murzuq Desert **99** **E4**
Mus **83** **C4** *38°45′N 41°30′E*
Musala, mountain **87** **G3** *42°11′N 23°35′E*
Musan **77** **C5** *42°14′N 129°14′E*
Muscat **83** **D3** *23°37′N 58°36′E*
Musgrave Ranges **43** **C7**
Musina **101** **E2** *22°20′S 30°2′E*
Muskegon **109** **F4** *43°14′N 86°15′W*
Mus-Khaya, mountain **93** **O5** *62°35′N 140°50′E*
Muskogee **109** **E3** *35°45′N 95°22′W*
Musoma **101** **E4** *1°29′S 33°48′E*
Mussau, island **63** **G3**
Muswellbrook **27** **G3** *32°16′S 150°53′E*
Mutare **101** **E3** *18°58′S 32°39′E*
Mutawintji National Park **26** **C4**
Muttaburra **23** **B3** *22°36′S 144°33′E*
Muyinga **101** **E4** *2°51′S 30°19′E*
Muzaffarnagar **79** **C3** *29°29′N 77°42′E*
Muzaffarpur **79** **D3** *26°7′N 85°23′E*
Muztag Feng, mountain **81** **G3** *36°24′N 87°23′E*
Muztagh Ata, mountain **79** **C4** *38°17′N 75°7′E*
Mwali, island **101** **F3**
Mwanza **101** **E4** *2°31′S 32°56′E*
Mwene-Ditu **101** **D4** *7°0′S 23°26′E*
Mweru, Lake **101** **D4**
Mwinilunga **101** **D3** *11°44′S 24°26′E*
Myall Hill **31** **D2** *35°49′S 149°9′E*
Myall Lakes National Park **27** **H3**
Myanmar, republic **73** **B5**
Myeik **79** **E2** *12°27′N 98°37′E*
Myeik Archipelago, island group **70** **A4**
Myingyan **79** **E3** *21°28′N 95°23′E*
Myitkyina **79** **E3** *25°22′N 97°24′E*
Mykolayiv **85** **H3** *46°58′N 31°59′E*
Mymensingh **79** **D3** *24°45′N 90°23′E*
Myrtle Beach **111** **E4** *33°41′N 78°53′W*
Myrtleford **35** **E2** *36°34′S 146°43′E*
Mysore **79** **C2** *12°19′N 76°39′E*
Mys Shmidta **93** **S5** *68°56′N 179°30′W*
My Tho **73** **D3**
Mzuzu **101** **E3** *11°28′S 34°1′E*

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Naas River **31** **D3**
Nabarlek **62** **C1** *12°10′S 133°17′E*
Nabavatu **61** **C4** *16°35′S 178°55′E*
Naberezhnyye Chelny **85** **J4** *55°42′N 52°19′E*
Nabeul **91** **G4** *36°28′N 10°44′E*
Nabire **62** **D3** *3°21′S 135°31′E*
Nablus **91** **K3** *32°13′N 35°15′E*
Nabouwalu **61** **C4** *16°59′S 178°42′E*
Nacala **101** **F3** *14°31′S 40°43′E*
Nacozari Viejo **110** **A4** *30°25′N 109°39′W*
Nacula, island **61** **B4** *16°54′S 177°26′E*
Nadi **61** **B3** *17°48′S 177°25′E*
Nadi Bay **61** **B3**
Nadi River **61** **B3**
Nadrau Plateau **61** **C3**
Naduri **61** **D4** *16°27′S 179°10′E*
Nadym River **93** **H5**
Naga **71** **D4** *13°37′N 123°11′E*
Naga Hills **79** **E3**
Nagaland, state **79** **E3**
Nagambie **35** **D2** *36°47′S 145°9′E*
Nagano **77** **E3** *36°39′N 138°10′E*
Nagaoka **77** **E3** *37°27′N 138°52′E*
Nagasaki **77** **C2** *32°46′N 129°53′E*
Nagele **101** **E5** *5°19′N 39°35′E*
Nagercoil **79** **C1** *8°11′N 77°26′E*
Nagoya **77** **E3** *35°9′N 136°55′E*
Nagpur **79** **C3** *21°10′N 79°5′E*
Naha **75** **G2** *26°12′N 127°40′E*
Nahanni National Park **106** **F4**
Nahuel Huapi, Lake **119** **C2**
Naigani **61** **C3** *17°35′S 178°40′E*
Naikorokoro **61** **C2** *18°59′S 178°12′E*
Nailaga **61** **B3** *17°31′S 177°40′E*
Nailega **61** **C3** *17°40′S 178°18′E*
Nailou **61** **D4** *16°31′S 179°51′E*
Nain **107** **L3** *56°33′N 61°41′W*
Naindi **61** **D4** *16°48′S 179°22′E*
Nairai, island **61** **D3** *17°49′S 179°24′E*
Nairobi **101** **E4** *1°17′S 36°49′E*
Naitionitoni **61** **C2** *18°13′S 178°10′E*
Naivasha **101** **E4** *0°43′S 36°26′E*
Najran **83** **C2** *17°30′N 44°8′E*
Nakavu **61** **C2** *18°11′S 178°7′E*
Nakdong River **77** **C3**
Nakhodka **77** **D5** *42°50′N 132°53′E*
Nakhon Nayok **73** **C4** *14°12′N 101°13′E*
Nakhon Pathom **73** **B3** *13°49′N 100°4′E*
Nakhon Phanom **73** **D4** *17°24′N 104°46′E*
Nakhon Ratchasima **79** **F2** *15°0′N 102°6′E*
Nakhon Sawan **79** **E2** *15°42′N 100°4′E*
Nakhon Si Thammarat **79** **F1** *8°24′N 99°58′E*
Nakondu **61** **D3** *17°23′S 179°25′E*
Nakoroutari **61** **D4** *16°32′S 179°25′E*
Nalebaleba **61** **B3** *17°57′S 177°40′E*
Naltchik **85** **I3** *43°30′N 43°37′E*
Nalut **91** **G3** *31°53′N 10°58′E*
Namadgi National Park **35** **F3**
Namakzar-E Shadad **83** **E4**
Namanga **101** **E4** *2°32′S 36°48′E*
Namangan, Tajikistan **92** **H3** *41°0′N 71°40′E*
Namaripi, Cape **62** **C3** *4°25′S 135°12′E*
Namatanai **63** **G3** *3°40′S 152°24′E*
Nambour **23** **D2** *26°38′S 152°58′E*
Nambucca Heads **27** **H4** *30°39′S 153°1′E*
Nambukelevuira **61** **B1** *19°8′S 177°58′E*
Nambung National Park **47** **B2**
Nam Dinh **70** **B5** *20°25′N 106°12′E*
Namib Desert **101** **C2**
Namibe **100** **C3** *15°11′S 12°10′E*
Namibia, republic **101** **C2**
Namib Sand Sea **100** **C2**
Nam Ngum Reservoir **73** **C5**

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Namoi River **27** **F4**
Nampo **77** **B4** *38°46'N 125°27'E*
Nampula **101** **E3** *15°8's 39°18'E*
Namtu **79** **E3** *23°5'N 97°24'E*
Namuamua **61** **C2** *18°5's 178°3'E*
Namulomulo **61** **B3** *17°48's 177°30'E*
Namur **89** **H2** *50°28'N 4°52'E*
Nan **79** **F2** *18°47'N 100°46'E*
Nanaimo **108** **B4** *49°9'N 123°56'W*
Nanango **23** **D2** *26°40's 152°0'E*
Nananu-i-cake, island **61** **C3** *17°19's 178°14'E*
Nananu-i-ra, island **61** **C3** *17°17's 178°13'E*
Nanao **77** **E3** *37°3'N 136°58'E*
Nancha **77** **C6** *47°8'N 129°17'E*
Nanchang **75** **F2** *28°41'N 115°53'E*
Nanchong **79** **F4** *30°47'N 106°8'E*
Nancy **89** **H1** *48°41'N 6°12'E*
Nanda Devi, mountain **79** **D4** *30°33'N 79°58'E*
Nanded **79** **C2** *19°10'N 77°18'E*
Nandyal **79** **C2** *15°31'N 78°29'E*
Nangnim Range **77** **B4**
Nanjing **75** **F3** *32°3'N 119°47'E*
Nanning **70** **B5** *22°49'N 108°19'E*
Nanping **75** **F2** *26°38'N 119°10'E*
Nanqara **61** **C2** *18°53's 178°30'E*
Nantes **84** **D3** *47°13'N 1°35'W*
Nanukuloa **61** **C3** *17°27's 178°14'E*
Nanuku Passage **61** **E3**
Nanyang **75** **F3** *33°0'N 112°32'E*
Nao, Cape **90** **E4**
Napier **65** **G5** *39°30's 176°54'E*
Napier Broome Bay **47** **E6** *14°3's 126°36'E*
Naples, Italy **85** **F3** *40°51'N 14°15'E*
Naples, United States of America **111** **D3** *26°9'N 81°48'W*
Napo River **116** **B3**
Naqali **61** **C3** *17°57's 178°23'E*
Nara **77** **E3** *34°47'N 135°54'E*
Naracoopa **39** **B5** *39°55's 144°7'E*
Naracoorte **34** **B2** *36°57's 140°44'E*
Narathiwat **79** **F1** *6°26'N 101°49'E*
Narawntapu National Park **39** **D3**
Narewa **61** **B3** *17°58's 177°33'E*
Narmada River **79** **C3**
Narodnaya, Mount **92** **F5** *65°4'N 60°9'E*
Naroi **61** **D2** *18°34's 179°57'E*
Narooma **27** **G1** *36°13's 150°8'E*
Narrabri **27** **F4** *30°20's 149°47'E*
Narrabundah **31** **D4** *35°21's 149°10'E*
Narrandera **35** **E3** *34°45's 146°33'E*
Narromine **27** **F3** *32°14's 148°14'E*
Narsarsuaq **107** **N4** *61°10'N 45°25'W*
Narva **92** **C4** *59°23'N 28°10'E*
Narvik **89** **J5** *68°23'N 17°17'E*
Naryan Mar **92** **F5** *67°39'N 53°3'E*
Naryn **92** **H3** *41°26'N 75°59'E*
Nasegai **61** **C1** *19°9's 178°5'E*
Nasesara **61** **C3** *17°46's 178°45'E*
Nashville **109** **F3** *36°10'N 86°47'W*
Nasik **79** **C3** *20°0'N 73°47'E*
Nasir **83** **B1** *8°36'N 33°4'E*
Nasorolevu, mountain **61** **D4** *16°37's 179°24'E*
Nassau **111** **E3** *25°5'N 77°21'W*
Nasser, Lake **99** **G4**
Nata **101** **D3** *20°13's 26°11'E*
Natal, Brazil **113** **H6** *5°47's 35°15'W*
Natara **93** **M5** *68°25'N 123°56'E*
Natashquan **107** **L3** *50°11'N 61°49'W*
Natawa **61** **B3** *17°19's 177°9'E*
Natchez **110** **C4** *31°33'N 91°23'W*
Natewa Bay **61** **D4**
Nathalia **35** **D2** *36°3's 145°12'E*
Nathamaki **61** **D3** *17°15's 179°26'E*
Nathan River **51** **E7** *15°35's 135°26'E*
Natimuk **34** **B2** *36°44's 141°57'E*
National Archives **31** **E5** *35°13's 149°9'E*
National Dinosaur Museum **31** **D5** *35°12's 149°5'E*
National Gallery **31** **D5** *35°18's 149°8'E*
National Museum **31** **D5** *35°18's 149°7'E*
Natitingou **100** **B6** *10°19'N 1°23'E*
Nattai National Park **27** **G2**
Natuna Basar, island **70** **B3**
Naturaliste, Cape, Western Australia **14** **B2** *33°32's 115°1'E*
Naturaliste, Cape, Tasmania **13** **E1** *40°51's 148°13'E*
Naturalist Peak **39** **D2** *42°40's 146°32'E*
Nauiyu **13** **D4** *13°45's 130°41'E*
Nauru, sovereignty **59** **F5**
Nausori **61** **C2** *18°2's 178°32'E*
Nautovatu **61** **E5**
Navaga **61** **D3** *17°18's 179°23'E*
Navai **61** **B3** *17°37's 177°59'E*
Navajoa **110** **B3** *27°5'N 109°27'W*
Navakawau **61** **E3** *17°0's 179°57'E*
Navala **61** **B3** *17°39's 177°49'E*
Navarin, Cape **93** **S5** *62°20'N 179°4'E*
Na Vasi **61** **C2** *18°7's 178°20'E*
Naviti, island **61** **B3** *17°7's 177°14'E*
Navoi **83** **E5** *40°7'N 65°21'E*
Navotuvotu, mountain **61** **C4** *16°50's 178°45'E*
Navsari **79** **C3** *20°51'N 72°55'E*
Navua River **61** **B2**
Nawabshah **78** **B3** *26°15'N 68°24'E*
Nawanggandamu **61** **B3** *17°56's 177°27'E*
Naweni **61** **D4** *16°46's 179°33'E*
Nawi **61** **D4** *16°42's 179°52'E*
Naxcivan **83** **C4** *39°13'N 45°25'E*
Naypyidaw **79** **E2** *19°46'N 96°7'E*
Nazareth **91** **K3** *32°42'N 35°18'E*
Nazret **101** **E5** *8°33'N 39°16'E*
Ndalatando **100** **C4** *9°18's 14°55'E*
Ndawara **61** **C4** *16°48's 179°1'E*
Ndele **101** **D5** *8°25'N 20°39'E*
N'Djamena **99** **E3** *12°7'N 15°3'E*
Ndola **101** **D3** *13°0's 28°39'E*
Ndraimba **61** **B3** *17°53's 177°45'E*
Ndrekeniwai **61** **D4** *16°40's 179°41'E*
Neale, Lake **51** **B2**
Nebraska, state **109** **D4**
Necochea **119** **D3** *38°34's 58°45'W*
Neftekamsk **81** **D5** *56°5'N 54°16'E*
Negra, Point **116** **A3** *5°57's 81°6'W*
Negrals, Cape **69** **G3**
Negro River **117** **C3**
Negros, island **71** **D3**
Nehe **77** **B6** *48°29'N 124°53'E*
Neijiang **79** **F3** *29°35'N 105°3'E*
Nei Mongol, state **75** **F4**
Neiva **116** **B4** *2°56'N 75°20'W*
Nekemte **83** **B1** *9°5'N 36°32'E*
Nelidovo **89** **M3** *56°13'N 32°46'E*
Nellore **79** **D2** *14°26'N 79°59'E*
Nelson, Canada **108** **C4** *49°29'N 117°17'W*
Nelson, Cape, Australia **15** **E2** *38°26's 141°33'E*
Nelson, Cape, Papua New Guinea **63** **F2** *9°0's 149°16'E*
Nelson, New Zealand **65** **E4** *41°18's 173°15'E*
Nelson Bay **27** **H3** *32°43's 152°9'E*
Nelson River **107** **I3**
Nelspruit **101** **E2** *25°28's 30°59'E*
Nema **98** **C3** *16°37'N 7°15'W*
Nenjiang **75** **G4** *49°11'N 125°14'E*
Nepal, kingdom **79** **D3**
Nephi **106** **G1** *39°43'N 111°50'W*
Nerang **27** **H5** *27°59's 153°20'E*
Neryungri **93** **M4** *56°40'N 124°43'E*
Netherlands, kingdom **85** **E4**
Nettilling Lake **107** **K4**
Neumayer, Antarctic base **55** **Q3** *70°39's 8°15'W*
Neumayer III, Antarctic base **55** **Q3** *70°41's 8°16'W*
Neuquen **119** **C3** *38°57's 68°4'W*
Nevada, state **108** **C3**
Nevelsk **77** **F6** *46°41'N 141°52'E*
Nevers **90** **E6** *46°59'N 3°10'E*
Nevinnomyssk **80** **C4** *44°37'N 41°57'E*
Nevis **111** **F2** *17°8'N 62°35'W*
New Amsterdam **117** **D4** *6°15'N 57°32'W*
Newark **109** **G4** *40°42'N 74°10'W*
New Braunfels **110** **C3** *29°42'N 98°8'W*
New Britain, island **63** **G2**
New Brunswick, province **109** **H4**
New Caledonia, island **59** **F3**
Newcastle, Australia **58** **D2** *32°51's 151°49'E*
Newcastle, United Kingdom **84** **D4** *55°0'N 1°36'W*
Newcastle Waters **13** **D4** *17°33's 133°28'E*
Newdegate **47** **C2** *33°6's 119°1'E*
New Delhi **79** **C3** *28°36'N 77°12'E*
New England **27** **G5**
New England National Park **27** **H4**
Newfoundland, island **107** **M2**
New Georgia, island **63** **H2** *8°9's 157°30'E*
New Georgia Islands **63** **H2**
New Glasgow **107** **L2** *45°35'N 62°38'W*
New Guinea, island **62** **E2**
New Guinea Highlands, range / mountain **62** **E3**
New Hampshire, state **109** **G4**
New Hanover, island **63** **F3** *2°29's 150°10'E*
New Haven **109** **G4** *41°20'N 72°54'W*
New Iberia **110** **C3** *30°0'N 91°49'W*
New Ireland, island **63** **G3**
New Jersey, state **109** **G3**
Newman **12** **C3** *23°22's 119°44'E*
Newman, Mount **47** **D4** *23°16's 119°34'E*
New Mexico, state **110** **B4**
New Norfolk **39** **D2** *42°47's 147°4'E*
New Orleans **110** **D3** *30°0'N 90°3'W*
New Plymouth **65** **E5** *39°4's 174°5'E*
New Providence, island **111** **E3**
New Siberian Island **69** **I6**
New South Wales, state **31** **E3**
Newstead **34** **C2** *37°6's 144°4'E*

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New York **109** **G4** *40°45′N 73°59′W*
New Zealand, commonwealth **65** **G3**
Neyshabur **78** **A4** *36°13′N 58°49′E*
Nezahualcoyotl **110** **C2** *19°25′N 99°2′W*
Ngabordamlu, Cape **62** **C2** *6°55′S 134°10′E*
Nganglong Kangri, mountain **79** **D4** *32°49′N 81°0′E*
Ngaoundere **99** **E2** *7°19′N 13°35′E*
Nggatokae, island **63** **H2** *8°45′S 158°10′E*
Ngorongoro **101** **E4** *3°15′S 35°31′E*
Nguigmi **99** **E3** *14°15′N 13°7′E*
Nguiu **51** **C9** *11°46′S 130°38′E*
Ngukurr **51** **E7** *14°44′S 134°44′E*
Nguru **99** **E3** *12°53′N 10°27′E*
Nha Trang **71** **B4** *12°15′N 109°10′E*
Nhill **34** **B2** *36°20′S 141°39′E*
Nhulunbuy **51** **F8** *12°11′S 136°47′E*
Niagara Falls **109** **G4** *43°5′N 79°3′W*
Niamey **98** **D3** *13°31′N 2°7′E*
Nias, island **70** **A3**
Nicaragua, Lake **111** **D2**
Nicaragua, republic **111** **D2**
Nice **85** **E3** *43°43′N 7°16′E*
Nicholson River **51** **F6**
Nicobar Islands **79** **E1**
Nicosia **83** **B4** *35°10′N 33°22′E*
Nicoya Peninsula **111** **D1**
Niger, republic **99** **D3**
Niger Delta **100** **B5**
Nigeria, republic **100** **B5**
Niger River **100** **B6**
Nihoa, island **59** **I8**
Niigata **77** **E3** *37°55′N 139°2′E*
Nikel **89** **M5** *69°25′N 30°13′E*
Nikolayevsk **81** **C4** *50°1′N 45°26′E*
Nikolayevsk na Amure **93** **O4** *53°9′N 140°44′E*
Nikopol **91** **K6** *47°34′N 34°24′E*
Nikumaroro, island **59** **H5**
Nila, island **62** **B2** *6°46′S 129°28′E*
Nile Delta **83** **B4**
Nile River **83** **B3**
Nil Island **77** **E3** *34°21′N 139°16′E*
Nimba, Mount **98** **C2** *7°34′N 8°28′W*
Nimes **85** **E3** *43°50′N 4°21′E*
Nimmitabel **27** **F1** *36°31′S 149°17′E*
Ninety Mile Beach, New Zealand **65** **E7** *35°1′S 173°10′E*
Ninety Mile Beach, Victoria **35** **E2** *38°32′S 147°0′E*
Ningaloo Reef **47** **B4**
Ning'an **77** **C5** *44°20′N 129°28′E*
Ningbo **75** **G2** *29°53′N 121°33′E*
Ningjng Mountains **79** **E4**
Ningxia Hui, state **75** **E3**
Ninh Binh **70** **B5** *20°15′N 105°59′E*
Ninigo Group, island group **62** **E3** *20°15′N 105°59′E*
Niokolo-Koba National Park **98** **B3**
Nipigon, Lake **109** **F4**
Nipigon **109** **F4** *49°1′N 88°15′W*
Nipissing, Lake **109** **G4**
Niquelandia **117** **E2** *14°28′S 48°28′W*
Nis **91** **I5** *43°20′N 21°54′E*
Nitmiluk National Park **51** **D7**
Niue, commonwealth **59** **I4**
Niyala **95** **G6** *12°4′N 24°53′E*
Nizamabad **79** **C2** *18°40′N 78°6′E*
Nizhenvartovsk **93** **H5** *60°56′N 76°35′E*
Nizhnekamsk **85** **J4** *55°38′N 51°49′E*
Nizhneyansk **93** **N6** *71°26′N 136°4′E*
Nizhny Novgorod **85** **I4** *56°20′N 43°0′E*
Nizhny Tagil **85** **K4** *57°55′N 59°58′E*
Nizhyn **89** **M2** *51°3′N 31°53′E*
Nizmennyy, Cape **77** **E5** *43°33′N 135°6′E*
Nizwa **83** **D3** *22°56′N 57°32′E*
Njazidja, island **101** **F3**
Njombe **101** **E4** *9°20′S 34°46′E*
Nkhotakota **101** **E3** *12°55′S 34°18′E*
Nkongsamba **100** **C5** *4°58′N 9°56′E*
Nmai River **79** **E3**
Nobeoka **77** **D2** *32°35′N 131°40′E*
Noel Kempff Mercado National Park **117** **C2**
Nogales **110** **A4** *31°18′N 110°57′W*
Noginsk **93** **J5** *64°29′N 91°14′E*
Nojima, Cape **77** **F3** *34°55′N 139°55′E*
Nola **101** **C5** *3°32′N 16°4′E*
Nomad **62** **E2** *6°18′S 142°14′E*
Nome **106** **B4** *64°30′N 165°24′W*
Nongan **77** **B5** *44°26′N 125°10′E*
Nong Khai **70** **B4** *17°52′N 102°45′E*
Nonthaburi **79** **E2** *13°50′N 100°29′E*
Noondie, Lake **47** **D3**
Noorat **34** **C1** *38°11′S 142°56′E*
Noosa **23** **D2** *26°23′S 153°05′E*
Noosa Heads **13** **F3**
Nordaustlandet, island **93** **D7**
Nordvik **93** **L6** *74°1′N 111°31′E*
Norfolk **109** **G3** *36°51′N 76°17′W*
Norfolk Island **59** **F3**
Norfolk, Mount **39** **B3** *41°27′S 144°58′E*
Norilsk **93** **J5** *69°20′N 88°13′E*
Normanby Island **63** **G1** *10°2′S 151°11′E*
Norman River **23** **B4**
Normanton **23** **B4** *17°40′S 141°5′E*
Norman Wells **106** **F4** *65°17′N 126°51′W*
Norrkoping **89** **J3** *58°36′N 16°11′E*
Norseman **47** **D2** *32°12′S 121°47′E*
Northam **12** **B2** *31°39′S 116°39′E*
Northampton **47** **B3** *28°21′S 114°38′E*
North Andaman, island **79** **E2**
North Astrolabe Reef **61** **C2**
North Battleford **109** **D5** *52°46′N 108°17′W*
North Bay **109** **G4** *46°18′N 79°27′W*
North Canberra **31** **D5** *35°15′S 149°8′E*
North Cape, New Zealand **65** **E7** *34°25′S 173°3′E*
North Cape, Norway **87** **G6** *71°11′N 25°40′E*
North Cape, Papua New Guinea **63** **G3** *2°34′S 150°49′E*
North Carolina, state **111** **E4**
North Dakota, state **109** **D4**
North Dvina River **87** **I5**
Northern Dvina River **92** **E5**
Northern European Plain **89** **M3**
Northern Mariana Islands, dependency **67** **J3**
Northern Marianas, island group **69** **J3**
Northern Territory **43** **E8**
North Goulburn Island **51** **D9**
North Island **65** **F6**
North Korea, republic **75** **G3**
Northland, region **65** **E7**
North Platte **107** **I2** *41°8′N 100°46′W*
North Platte River **109** **D4**
North Point **39** **C4** *40°43′S 145°16′E*
North Saskatchewan River **107** **G3**
North Sea **85** **E4**
North Siberian Lowland **93** **K6**
North Taranaki Bight **65** **E5** *38°58′S 174°18′E*
North West Cape **14** **B3** *21°49′S 114°7′E*
North West Shelf **14** **B4**
Northwest Territories, province **106** **F4**
Norton Sound **106** **B4**
Norway, kingdom **85** **E5**
Norway House **109** **E5** *53°58′N 97°50′W*
Norwegian Sea **85** **E5**
Norwich **89** **G2** *52°38′N 1°18′E*
Nottingham **84** **D4** *52°58′N 1°10′W*
Nouadhibou **98** **B4** *20°54′N 17°3′W*
Nouakchott **98** **B3** *18°5′N 15°59′W*
Noumea **59** **F3** *22°16′S 166°27′E*
Nova Cruz **117** **F3** *6°28′S 35°26′W*
Nova Iguacu **117** **E1** *22°44′S 43°28′W*
Novara **91** **F6** *45°27′N 8°37′E*
Nova Scotia, province **109** **H4**
Novaya Zemlya, island **67** **E6**
Novi Sad **91** **I6** *45°15′N 19°51′E*
Novocherkassk **91** **L6** *47°25′N 40°5′E*
Novokuybishevsk **81** **C5** *53°7′N 49°55′E*
Novokuznetsk **93** **I4** *53°45′N 87°7′E*
Novolazarevskaya, Antarctic base **55** **A3** *70°46′S 11°50′E*
Novomoskovsk **80** **B5** *54°5′N 38°13′E*
Novorossiysk **85** **H3** *44°44′N 37°46′E*
Novosibirsk **67** **G5** *55°2′N 82°57′E*
Novozybkov **89** **M2** *52°32′N 31°57′E*
Novyy Port **93** **H5** *67°42′N 72°56′E*
Nowendoc National Park **27** **G4**
Nowra **27** **G2** *34°53′S 150°36′E*
Nowy Sacz **89** **K1** *49°38′N 20°42′E*
Nu (Salween) River **75** **D3**
Nubeena **39** **E1** *43°6′S 147°45′E*
Nubian Desert **83** **B3**
Nuboai **62** **D3** *2°15′S 136°30′E*
Nubu **61** **D4** *16°18′S 179°38′E*
Nueva Gerona **111** **D3** *21°53′N 82°48′W*
Nueva Rosita **110** **B3** *27°57′N 101°13′W*
Nueve de Julio **119** **D3** *35°27′S 60°53′W*
Nuevitas **111** **E3** *21°33′N 77°16′W*
Nuevo Casas Grandes **110** **B4** *30°25′N 107°55′W*
Nuevo Laredo **110** **B3** *27°30′N 99°33′W*
Nuevo Rocafuerte **116** **B3** *0°56′S 75°24′W*
Nugget Point **65** **D1** *46°27′S 169°49′E*
Nukiki **63** **H2** *6°43′S 156°28′E*
Nuku'alofa **59** **H3** *21°8′S 175°13′W*
Nukudamu **61** **D4** *16°10′S 179°58′E*
Nukuhiva, island **59** **K5**
Nukumanu, island **63** **H3**
Nukuroro, island **59** **E6**
Nukus **83** **E5** *42°28′N 59°37′E*

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Nullagine **12** C3 *21°53′S 120°7′E*
Nullarbor National Park **43** B5
Nullarbor Plain **43** B5
Numbulwar **51** F7
14°17′S 135°44′E
Numfoor, island **62** D3
1°2′S 134°52′E
Numurkah **35** D2
36°5′S 145°27′E
Nunavut, province **107** I4
Nungar, Mount **31** B1
35°50′S 148°39′E
Nunivak Island **106** B4
Nuriootpa **43** G3
34°28′S 139°0′E
Nu River **79** E4
Nurnberg **85** F3 *49°27′N 11°5′E*
Nusaybin **83** C4 *37°4′N 41°13′E*
Nuuk (Godthab) **107** N4
64°12′N 51°44′W
Nyagan **92** G5 *62°9′N 65°23′E*
Nyah **34** C3 *35°11′S 143°23′E*
Nyala **99** F3 *12°4′N 24°53′E*
Nye Bay **39** C1
Nyeboe Land **107** M6
Nyiregyhaza **85** G3
47°58′N 21°43′E
Nymboida National Park **27** H5
Nyngan **27** E4 *31°34′S 147°11′E*
Nzega **101** E4 *4°13′S 33°11′E*
Nzeto **100** C4 *7°14′S 12°52′E*
Nzwani, island **101** F3

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Oahe, Lake **107** H2
Oahe Reservoir **109** D4
Oahu, island **59** J8
Oakey **23** D2 *27°26′S 151°43′E*
Oakland **108** B3
37°46′N 122°13′W
Oaklands **35** E3 *35°33′S 146°10′E*
Oamaru **65** D2 *45°6′S 170°58′E*
Oates Coast **57** I3
Oatlands **39** E2 *42°18′S 147°22′E*
Oaxaca **110** C2 *17°5′N 96°40′W*
Oban **65** B1
Obando **116** C4 *3°51′N 67°54′W*
Oberon **27** F3 *33°42′S 149°52′E*
Obi, island **62** B3 *1°32′S 127°47′E*
Obihiro **77** F5 *42°56′N 143°10′E*
Oblachnaya, Mount **75** H4
43°38′N 134°9′E
Obninsk **89** N3 *55°5′N 36°37′E*
Ob River **67** G5
Observatory **31** E5
35°15′S 149°9′E
Obuasi **98** C2 *6°11′N 1°40′W*
Ocala **111** D3 *29°11′N 82°8′W*
Ocana **111** E1 *8°14′N 73°21′W*
Ocean Grove **35** D1
38°16′S 144°31′E
Oceanside **108** C3
33°13′N 117°20′W
Oconee River **111** D4
October Revolution Island **93** I6

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Odense **85** F4 *55°24′N 10°23′E*
Oder River **85** F4
Odessa **110** B4 *31°51′N 102°22′W*
Oenpelli **62** C1 *12°20′S 133°3′E*
Officer Creek **43** D7
Ogaden Desert **101** F5
Ogasawara Islands **77** F1
Ogbomosho **100** B5
8°8′N 4°14′E
Ogden **108** C4 *41°14′N 111°58′W*
Ohau, Lake **65** C2
Ohio, state **109** F4
Ohio River **109** F3
Oita **77** C2 *33°15′N 131°36′E*
Ojinaga **110** B3
29°32′N 104°25′W
Ojos del Salado, mountain **119** C4 *27°7′S 68°33′W*
Okaba **62** D2 *8°2′S 139°45′E*
Okahandja **101** C2
21°59′S 16°55′E
Okapa **63** F2 *6°31′S 145°36′E*
Okapi Wildlife Reserve **101** D5
Okara **79** C4 *30°49′N 73°27′E*
Okavango Delta **101** D3
Okayama **77** D3
34°40′N 133°55′E
Okazaki **77** E3 *34°57′N 137°11′E*
Okeechobee, Lake **111** D3
Okha **93** O4 *53°34′N 142°57′E*
Okhotsk **93** O4 *59°23′N 143°13′E*
Okhotsk, Sea of **77** G5
Oki Islands **77** D3
Okinawa, island **75** G2
Okinoerabu Island **77** B1
27°23′N 128°34′E
Oklahoma, state **110** C4
Oklahoma City **109** E3
35°28′N 97°31′W
Ok Tedi **62** E2 *5°15′S 141°5′E*
Oktyabrsk **92** F3
49°28′N 57°27′E
Oktyabrskiy **93** P4
52°40′N 156°14′E
Oland **87** F4
Olary **26** B3 *32°17′S 140°19′E*
Olbia **91** F5 *40°55′N 9°31′E*
Oldenburg **89** H2 *53°8′N 8°13′E*
Olekma River **93** M4
Olenek **93** L5 *68°32′N 112°27′E*
Olenek River **93** L5
Olgiy **75** D4 *48°56′N 89°57′E*
Olinda **117** F3 *8°0′S 34°51′W*
Olmaliq **81** E4 *40°51′N 69°36′E*
Olomouc **89** J1 *49°38′N 17°15′E*
Olongapo **71** C4
14°50′N 120°17′E
Olsztyn **89** K2 *53°48′N 20°29′E*
Olympia **108** B4
47°2′N 122°54′W
Olympic Dam Village **43** F5
30°29′S 136°54′E
Olympic National Park **108** B4
Olympus, Mount **87** G2
40°5′N 22°21′E

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Olyutorskiy, Cape **93** R4
59°58′N 170°19′E
Oma, Cape **77** F4
41°33′N 140°55′E
Omaha **109** E4 *41°14′N 96°1′W*
Oman, Gulf of **81** D2
Oman, sultanate **83** D3
Omboue **100** B4 *1°34′S 9°15′E*
Omdurman **83** B2
15°37′N 32°29′E
Omeo **35** E2 *37°6′S 147°36′E*
Omolon River **93** Q5
Omo River **101** E5
Omsk **92** H4 *55°0′N 73°24′E*
Omutninsk **92** F4
58°40′N 52°10′E
Ondjiva **101** C3 *17°4′S 15°44′E*
Ondorhaan **75** F4
47°19′N 110°39′E
Oneahibunga / Lake Burnside **47** D3
Onega **89** N4 *63°56′N 38°5′E*
Onega, Lake **85** H5
Onega River **89** N4
One Tree Hill **31** D6
35°9′S 149°5′E
Ongjin **77** B3 *37°56′N 125°21′E*
Ongole **79** D2 *15°34′N 80°3′E*
Ongwediva **101** C3
17°47′S 15°46′E
Onitsha **100** B5 *6°8′N 6°47′E*
Onkaparinga River National Park **43** F3
Ono, island **61** C2
18°54′S 178°29′E
Ono Channel **61** C2
Onslow **47** B4 *21°38′S 115°7′E*
Ontario, province **109** f4
Ontario, Lake **109** G4
Ontario, United States of America **108** C4
44°2′N 116°58′W
Ontong Java Islands **63** H2
Oodnadatta **43** E7
27°33′S 135°27′E
Oolambeyan National Park **35** D3
Ooldea **43** C5 *30°28′S 131°50′E*
Oombulgurri **13** C4
15°11′S 127°51′E
Ooratippra **51** F4 *21°53′S 136°5′E*
Oostanay **92** G4
53°13′N 63°38′E
Opole **89** J2 *50°41′N 17°56′E*
Opthalmia Range **47** C4
Opuwo **100** C3 *18°4′S 13°49′E*
Oradea **91** I6 *47°3′N 21°55′E*
Oral **92** F4 *51°16′N 51°20′E*
Oran **90** D4 *35°43′N 0°37′W*
Orange **27** F3 *33°17′S 149°6′E*
Orangeburg **111** D4
33°30′N 80°52′W
Orange Cape **117** D4
4°8′N 51°15′W
Orangerie Bay **63** F1
Orange River **101** C2

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Orangeville **109** F4
43°55′N 80°5′W
Oranjestad **111** E2
12°32′N 70°2′W
Orbost **35** F2 *37°42′S 148°27′E*
Orchilla, island **111** F2
11°48′N 66°8′W
Ord, Mount **47** E5
17°21′S 125°33′E
Ord River **51** B6
Ordu, Turkey **83** B5
41°0′N 37°52′E
Orebro **85** F4 *59°17′N 15°13′E*
Oregon, state **108** C4
Orel **85** H4 *52°58′N 36°4′E*
Orenburg **85** J4 *51°47′N 55°7′E*
Orford **39** E2 *42°34′S 147°52′E*
Orinoco River **111** F1
Orinoco River Delta **111** F1
Orissa, state **79** D3
Oriximina **117** D3 *1°46′S 55°52′W*
Orizaba, mountain **110** C2
19°2′N 97°17′W
Orizaba **110** C2 *18°51′N 97°8′W*
Orkney Islands, island group **88** F3
Orlando **111** D3 *28°31′N 81°23′W*
Orleans **89** G1 *47°54′N 1°54′E*
Orlu **98** D2 *5°47′N 7°2′E*
Ormac **71** D4 *11°4′N 124°36′E*
Ornskoldsvik **89** J4
63°19′N 18°43′E
Orocue **116** B4 *4°48′N 71°20′W*
Oroluk, island **59** E6
Orongen Zizhiqi **75** G5
50°34′N 123°43′E
Orroroo **43** G4 *32°44′S 138°37′E*
Orsha **89** M2 *54°31′N 30°25′E*
Orsk **92** F4 *51°13′N 58°38′E*
Orumiyeh **83** C4 *37°32′N 45°0′E*
Oruro **113** E5 *17°59′S 67°8′W*
Osaka **67** I4 *34°45′N 135°27′E*
Osakarovka **74** B5
50°35′N 72°34′E
Osh **92** H3 *40°32′N 72°47′E*
Oshawa **109** G4
43°53′N 78°51′W
Oshogbo **100** B5 *7°46′N 4°34′E*
Osijek **91** H6 *45°33′N 18°41′E*
Oskemen **74** C5
49°59′N 82°37′E
Oslo **85** E4 *59°55′N 10°45′E*
Osnabruck **89** H2 *52°17′N 8°3′E*
Osorno **119** B2 *40°34′S 73°10′W*
Osprey Reef **23** C5
Ossa, Mount **39** D3
41°52′S 146°2′E
Ostersund **89** J4 *63°11′N 14°39′E*
Ostrava **85** F3 *49°50′N 18°15′E*
Osuma Strait **77** C2
Osumi Islands **77** C2
Otago, Australia **39** E2
42°49′S 147°18′E
Otago, New Zealand **65** D2
Otago Peninsula **65** D2
45°54′S 170°42′E

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Otaki **65** **F4** *40°45′S 175°9′E*
Otaru **77** **F5** *43°11′N 140°59′E*
Otgon Tenger **75** **D4** *47°36′N 97°33′E*
Otjiwarongo **101** **C2** *20°28′S 16°38′E*
Otsu **77** **E3** *35°0′N 135°52′E*
Ottawa **109** **G4** *45°25′N 75°42′W*
Ottawa River **109** **G4**
Ottumwa **109** **E4** *41°1′N 92°25′W*
Oturkpo **100** **B5** *7°11′N 8°8′E*
Otway, Cape **15** **E2** *38°51′S 143°34′E*
Otway Range **34** **C1**
Ouadda **101** **D5** *8°4′N 22°24′E*
Ouagadougou **98** **D3** *12°22′N 1°32′W*
Ouahigouya **98** **C3** *13°34′N 2°25′W*
Ouargla **90** **E3** *31°58′N 5°20′E*
Oudtshoorn **101** **D1** *33°35′S 22°11′E*
Ouesso **101** **C5** *1°37′N 16°3′E*
Ouezzane **90** **C3** *34°49′N 5°34′W*
Oujda **90** **D3** *34°41′N 1°55′W*
Oulu **85** **G5** *65°0′N 25°28′E*
Ourense **90** **C5** *42°20′N 7°52′W*
Ourinhos **117** **D1** *22°58′S 49°52′W*
Outer Hebrides, island group **86** **D4**
Outer Sister Island **39** **F5**
Outjo **101** **C2** *20°7′S 16°8′E*
Ouvea, island **59** **F4**
Ouyen **34** **C3** *35°4′S 142°19′E*
Ovalau, island **61** **C3** *17°41′S 178°47′E*
Ovalle **119** **B3** *30°35′S 71°12′W*
Ovens River **35** **E2**
Oviedo **84** **D3** *43°21′N 5°50′W*
Owando **101** **C4** *0°29′S 15°55′E*
Owase **77** **E3** *34°2′N 136°13′E*
Owensboro **109** **F3** *37°46′N 87°7′W*
Owen Stanley Range **23** **C5**
Oxford **88** **F2** *51°46′N 1°15′W*
Oxley Wild Rivers National Park **27** **H4**
Oyem **100** **C5** *1°37′N 11°35′E*
Oyo **100** **B5** *7°51′N 3°56′E*
Ozamis **71** **D3** *8°9′N 123°51′E*
Ozernoy, Cape **93** **Q4** *57°46′N 163°15′E*

P

Pa-an **73** **B4** *16°51′N 97°37′E*
Paarl **101** **C1** *33°42′S 18°58′E*
Pachuca **110** **C3** *20°10′N 98°44′W*
Pacific Harbour **61** **C2** *18°15′S 178°5′E*
Pacific Ocean **61** **C4**
Packsaddle **26** **B4** *30°36′S 141°58′E*
Padang **70** **A2** *0°57′S 100°21′E*
Padangpanjang **70** **A2** *0°27′S 100°25′E*
Padangsidempuan **70** **B3** *1°23′N 99°16′E*
Paeroa **65** **F6** *37°22′S 175°40′E*
Pagadian **71** **D3** *7°51′N 123°30′E*
Pago Pago **59** **I4** *14°17′S 170°42′W*
Pagwi **62** **E3** *4°2′S 142°59′E*
Paijanne **87** **G5**
Pakaraima Mountains **111** **F1**
Pakenham **35** **D1** *38°4′S 145°28′E*
Pakhachi **93** **Q4** *60°35′N 169°3′E*
Pakistan, republic **78** **B3**
Pakokku **79** **E3** *21°20′N 95°5′E*
Pakwach **101** **E5** *2°28′N 31°29′E*
Pakxe **73** **D4**
Palana **93** **Q4** *59°5′N 159°57′E*
Palangkaraya **71** **C2** *2°13′S 113°55′E*
Palapye **101** **D2** *22°34′S 27°8′E*
Palatka **111** **D3** *29°39′N 81°39′W*
Palau, republic **71** **E3**
Palau Islands **71** **E3**
Palawan, island **71** **C4**
Palembang **70** **B2** *2°59′S 104°45′E*
Palermo **85** **F2** *38°8′N 13°21′E*
Pali **79** **C3** *25°47′N 73°20′E*
Palikir **59** **E6** *6°55′N 158°9′E*
Palk Strait **79** **C1**
Palliser, Cape **65** **F4**
Palliser Bay **65** **F4** *41°25′S 175°3′E*
Palma **84** **E2** *39°34′N 2°39′E*
Palmas, Cape **98** **C2** *4°22′N 7°27′W*
Palmas **117** **E2** *10°14′S 48°17′W*
Palma Soriano **111** **E3** *20°13′N 75°0′W*
Palm Coast **111** **D3** *29°32′N 81°13′W*
Palmeirinhas Point **100** **C4** *9°4′S 13°0′E*
Palmer, Antarctic base **55** **O3** *64°46′S 64°3′W*
Palmer **106** **D4** *61°36′N 149°7′W*
Palmer Land **57** **O3**
Palmerston, Cape **23** **D3** *21°32′S 149°29′E*
Palmerston, island **59** **I4**
Palmerston **51** **C8** *12°29′S 130°59′E*
Palmerston North **65** **F4** *40°21′S 175°36′E*
Palm Islands **23** **C4**
Palm Springs **108** **C3** *33°47′N 116°32′W*
Palopo **71** **D2** *3°6′S 120°14′E*
Palu **71** **C2** *0°54′S 119°50′E*
Pamirs, range **79** **C4**
Pamlico Sound **109** **G3**
Pampas **115** **E3**
Pamplona **90** **D5** *42°49′N 1°39′W*
Panama, Gulf of **111** **E1**
Panama, republic **111** **D1**
Panama Canal **111** **E1**
Panama City, Colombia **103** **L2** *8°58′N 79°32′W*
Panama City, Panama **111** **E1** *8°58′N 79°32′W*
Panama City, United States of America **111** **D4** *30°10′N 85°39′W*
Panay, island **71** **D4**
Panevezys **89** **L3** *55°44′N 24°22′E*
Pangkalpinang **70** **B2** *2°5′S 106°9′E*
Pangnirtung **107** **L4** *66°8′N 65°45′W*
Panguna **63** **H2** *6°19′S 155°29′E*
Panipat **79** **C3** *29°24′N 76°58′E*
Pannawonica **47** **C4** *21°38′S 116°19′E*
Panshi **77** **B5** *42°57′N 126°3′E*
Pantanal, wetlands **117** **D2**
Pantanal Conservation Complex **117** **D2**
Panzhihua **79** **F3** *26°33′N 101°44′E*
Papeete **59** **K4** *17°32′S 149°34′W*
Papisoi, Cape **62** **C3** *4°0′S 132°58′E*
Papua **62** **D3**
Papua, Gulf of **63** **E2**
Papua New Guinea, republic **71** **F2**
Papunya **13** **D3** *23°12′S 131°55′E*
Paraburdoo **47** **C4** *23°12′S 117°40′E*
Paracel Islands **71** **C4**
Paragominas **117** **E3** *2°58′S 47°29′W*
Paraguari **117** **D1** *25°37′S 57°10′W*
Paraguay, republic **117** **C1**
Paraguay River **117** **D1**
Parakou **100** **B5** *9°20′N 2°37′E*
Paramaribo **117** **D4** *5°50′N 55°10′W*
Parana **119** **D3** *31°44′S 60°32′W*
Paranagua **117** **E1** *25°32′S 48°32′W*
Paranaiba River **119** **E5**
Parana River **117** **D1**
Paraparaumu **65** **F4** *40°54′S 175°0′E*
Parbhani **79** **C2** *19°16′N 76°46′E*
Parengarenga Harbour **65** **E7** *34°31′S 172°56′E*
Parepare **71** **C2** *4°1′S 119°38′E*
Parinas, Point **115** **C6** *4°40′S 81°19′W*
Paris **85** **E3** *48°52′N 2°20′E*
Parkes **27** **F3** *33°8′S 148°11′E*
Parliament House **31** **D5** *35°18′S 149°7′E*
Parma **91** **F5** *44°49′N 10°19′E*
Parnaiba **117** **E3** *2°55′S 41°46′W*
Parnaiba River **117** **E3**
Parnu **89** **K3** *58°22′N 24°31′E*
Paroo–Darling National Park **26** **C4**
Paroo River **27** **D5**
Paropamisus Range **78** **B4**
Parras, Mexico **110** **B3** *25°25′N 102°11′W*
Parry Islands **107** **I5**
Parry Sound **109** **G4** *45°20′N 80°2′W*
Partizansk **77** **D5** *43°8′N 133°8′E*
Pasadena, California **108** **C3** *34°10′N 119°8′W*
Pasadena, Texas **110** **C3** *29°40′N 95°9′W*
Pasar Singkil **70** **A3** *2°17′N 97°47′E*
Pasley, Cape **47** **D2** *33°56′S 123°31′E*
Paso Robles **108** **B3** *35°38′N 120°41′W*
Passau **89** **I1** *48°34′N 13°28′E*
Passo Fundo **119** **D4** *28°15′S 52°25′W*
Pasto **116** **B4** *1°13′N 77°17′W*
Patagonia **115** **E2**
Paterson **109** **G4** *40°55′N 74°10′W*
Paterson, Cape **35** **D1** *38°41′S 145°36′E*
Pathankot **79** **C4** *32°16′N 75°43′E*
Pathein **79** **E2** *16°46′N 94°45′E*
Pathum Thani **79** **E2** *14°1′N 100°32′E*
Pati **71** **C2** *6°44′S 111°2′E*
Patiala **79** **C4** *30°19′N 76°23′E*
Patna **79** **D3** *25°38′N 85°8′E*
Patos Lagoon **115** **G3**
Patra **85** **G2** *38°14′N 21°44′E*
Pattani **73** **C2** *6°52′N 101°15′E*
Paulatuk **107** **F4** *69°23′N 123°59′W*
Pavlodar **93** **H4** *52°18′N 76°57′E*
Paysandu **119** **D3** *32°20′S 58°5′W*
Peace River **106** **G3**
Peak Charles National Park **47** **D2**
Peak Hill **27** **F3** *32°43′S 148°11′E*
Peak Trikora, mountain **62** **D3** *4°19′S 138°42′E*
Peak Yamin, mountain **62** **E3** *4°32′S 139°55′E*
Pearl River **109** **F3**
Pec **91** **I5** *42°40′N 20°19′E*
Pechora **92** **F5** *65°10′N 57°13′E*
Pechora River **92** **F5**
Peck Lake, Fort **109** **D4**
Pecos **110** **B4** *31°25′N 103°30′W*
Pecos River **110** **B4**
Pecs **91** **H6** *46°5′N 18°13′E*
Pedder, Lake **39** **C2**
Pedro Juan Caballero **117** **D1** *22°33′S 55°46′W*

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Peery Lake **26** C4
Pegasus Bay **65** E3
43°25'S 172°43'E
Pegu Range **70** A4
Pekanbaru **70** B3
0°34'N 101°25'E
Pelly River **106** E4
Peloponnese, island **91** I4
Pelotas **113** F3 *31°45'S 52°20'W*
Pematangsiantar **70** A3
2°58'N 99°4'E
Pemba **101** F3 *12°59'S 40°32'E*
Pemba Island **101** F4
Pembroke **109** G4
45°51'N 77°7'W
Penas, Gulf of **119** B2
Penguin **39** C3 *41°7'S 146°4'E*
Peninsula Valdes **119** C2
Penju Islands **71** D2
Penner River **79** C2
Pennines **86** D4
Pennsylvania, state **109** G4
Penola **34** B2 *37°23'S 140°50'E*
Penong **13** D2 *31°56'S 133°1'E*
Penonome **111** D1
8°31'N 80°22'W
Penrhyn, island **59** J5
Pensacola **110** D4
30°25'N 87°13'W
Penshurst **34** C2
37°53'S 142°17'E
Pensiangan **71** C3
4°33'N 116°19'E
Penza **85** I4 *53°11'N 45°0'E*
Penzance **88** E2 *50°8'N 5°33'W*
Peoria **109** E4 *40°42'N 89°40'W*
Perabumulih **70** B2
3°27'S 104°14'E
Percival Lakes **47** E4
Pereira **113** D7 *4°49'N 75°41'W*
Pergamino **119** C3
33°54'S 60°34'W
Perisher Village **35** F2
36°24'S 148°25'E
Perkam, Cape **62** D3
1°33'S 137°53'E
Perm **85** J4 *58°0'N 56°15'E*
Peron Islands **62** B1
Perpignan **90** E5 *42°42'N 2°54'E*
Persian Gulf (Arabian Gulf) **81** D2
Perth, Tasmania **39** E3
41°34'S 147°10'E
Perth, United Kingdom **88** F3
56°24'N 3°28'W
Perth, Western Australia **12** B2
31°57'S 115°50'E
Peru, republic **116** B2
Perugia **91** G5 *43°7'N 12°23'E*
Pescara **91** G5 *42°27'N 14°13'E*
Peshawar **67** F4 *34°0'N 71°32'E*
Petatlan **110** B2 *17°31'N 101°16'W*
Peterborough, Australia **43** G4
32°58'S 138°50'E
Peterborough, Canada **107** K2
44°18'N 78°20'W
Petermann Ranges **51** B2
Peter the Great Bay **77** C5
Petoskey **109** F4
45°22'N 84°57'W
Petrolina **117** F3 *9°23'S 40°31'W*
Petropavlovsk **92** G4
54°53'N 69°13'E
Petropavlovsk Kamchatskiy **93** P4 *53°4'N 158°37'E*
Petrozavodsk **85** H5
61°51'N 34°17'E
Pevek **93** R5 *69°42'N 170°19'E*
Phangan Samui, basin **70** B3
Phangnga **73** B2 *8°27'N 98°32'E*
Phan Rang **71** B4
11°34'N 108°59'E
Phan Thiet **73** E3
10°56'N 108°6'E
Phatthalung **73** C2
7°37'N 100°5'E
Phayao **70** B4 *19°10'N 99°54'E*
Phetchabun **73** C4
16°25'N 101°10'E
Phetchaburi **79** E2
13°7'N 99°56'E
Phichit **73** C4 *16°26'N 100°21'E*
Philadelphia **109** G4
40°0'N 75°10'W
Philippines, republic **71** D4
Philippine Sea **77** D1
Phillip Island **35** D1
Phipps, Mount **35** E2
37°12'S 147°26'E
Phitsanulok **70** B4
16°50'N 100°16'E
Phnom Penh **67** H3
11°33'N 104°55'E
Phnum Tbeng Meanchey **73** D3
13°49'N 104°58'E
Phoenix **110** A4 *33°33'N 112°4'W*
Phoenix Islands **59** H5
Phongsali **73** C5
Phrae **79** F2 *18°9'N 100°10'E*
Phuket **79** E1 *7°53'N 98°23'E*
Phuket Island **79** E1
Phyarpon **79** E2 *16°18'N 95°41'E*
Picadilly Circus **31** B4
35°22'S 148°48'E
Pico da Bandeira, mountain **117** E1 *20°26'S 41°48'W*
Pico da Neblina, mountain **116** C4 *0°48'N 66°2'W*
Picos **117** E3 *7°5'S 41°26'W*
Picton, Australia **27** G2
34°10'S 150°37'E
Picton, Mount **39** D1
43°9'S 146°36'E
Picton, New Zealand **65** F4
41°18'S 174°1'E
Pidurutalagala, mountain **79** D1
7°0'N 80°46'E
Piedras Negras **110** B3
28°42'N 100°32'W
Pierre **109** E4 *44°22'N 100°21'W*
Pietarsaari **89** K4
63°36'N 22°47'E
Pietermaritzburg **101** E2
29°37'S 30°23'E
Pig Hill **31** C5 *35°13'S 148°54'E*
Pigs, Bay of **111** D3
Pik Imeni Ismail Samani, mountain **79** C4
38°55'N 72°1'E
Pilar **117** D1 *26°52'S 58°18'W*
Pilbara **47** C4
Pilcomayo River **117** C1
Pillar, Cape **39** F1 *43°13'S 148°1'E*
Pinar del Rio **111** D3
22°25'N 83°42'W
Pinatubo, Mount **71** C4
15°9'N 120°21'E
Pindus Mountains **87** G2
Pine Bluff **110** C4 *34°14'N 92°0'W*
Pine Creek **62** C1
13°49'S 131°49'E
Pine Island Bay **57** M3
Pingdingshan **75** F3
33°44'N 113°18'E
Pingelly **47** C2 *32°32'S 117°5'E*
Pingliang **79** F4 *35°32'N 106°41'E*
Ping River **79** E2
Pingtung **71** D5 *22°41'N 120°29'E*
Pingxiang, Guangxi **70** B5
22°6'N 106°45'E
Pingxiang, Jiangxi **75** F2
27°37'N 113°51'E
Pinjarra **47** C2 *32°38'S 115°52'E*
Pinnaroo **34** B3 *35°16'S 140°55'E*
Pinrang **71** C2 *3°47'S 119°39'E*
Pinsk **89** L2 *52°8'N 26°6'E*
Piracicaba **117** E1
22°43'S 47°38'W
Pirgos **85** G2 *37°41'N 21°27'E*
Pirimapun **62** D2 *6°19'S 138°26'E*
Pirin National Park **83** A5
Piru **62** B3 *3°4'S 128°11'E*
Pisa **91** G5 *43°43'N 10°24'E*
Pisco **116** B2 *13°43'S 76°13'W*
Pitcairn Islands, dependency **59** M3
Pitesti **91** J5 *44°51'N 24°53'E*
Pitons, cirques and remparts of Reunion Island **101** G2
Pitons Management Area **111** F2
Pittsburgh **109** F4
40°26'N 80°0'W
Piura **116** A3 *5°13'S 80°38'W*
Pizen **89** I1 *49°44'N 13°22'E*
Plain of Bornu **99** E3
Plateau of Iran **69** E4
Plateau of Mato Grosso **117** D2
Plateau of Tibet **93** J2
Plateau of Tibet (Xizang Plateau) **81** G3
Platte River **109** E4
Plattsburg **109** G4
44°42'N 73°27'W
Play Ku **70** B4 *13°59'N 108°0'E*
Plenty, Bay of **65** G6
Pleven **91** I5 *43°25'N 24°37'E*
Plitvice Lakes National Park **91** G5
Plock **89** K2 *52°34'N 19°42'E*
Ploiesti **85** G3 *44°57'N 26°2'E*
Plovdiv **85** G3 *42°9'N 24°45'E*
Plumtree **101** D2
20°29'S 27°49'E
Plymouth **84** D4 *50°23'N 4°10'W*
Pocatello **108** C4
42°52'N 112°27'W
Pochutla **110** C2
15°44'N 96°28'W
Podgorica **85** F3 *42°28'N 19°16'E*
Podolsk **89** N3 *55°23'N 37°32'E*
Poffader **101** D2 *29°8'S 19°23'E*
Pohang **77** C3 *36°1'N 129°22'E*
Pohnpei, island **59** F6
Point Brown **43** D4
32°33'S 133°51'E
Point Culver **47** E2
32°55'S 124°41'E
Point D'Entrecasteaux **47** B2
34°50'S 116°0'E
Pointe-a-Pitre **111** F2
16°14'N 61°32'W
Pointe-Noire **100** C4
4°46'S 11°53'E
Point Eugenia **105** H4
Point Hibbs **39** C2
42°37'S 145°16'E
Point Hicks **35** F2
37°48'S 149°17'E
Point Hope **105** C9
Point Lonsdale **35** D1
38°18'S 144°37'E
Point Norte **115** E2
Point Nuyts **47** C1
35°4'S 116°38'E
Point St Mathieu, cape / peninsula **90** C6
Point Westall **43** D4
32°54'S 134°4'E
Poitier **90** D6 *46°35'N 0°20'E*
Poland, republic **85** F4
Polar Plateau **57** R4
Polatli **83** B4 *39°35'N 32°9'E*
Polatsk **89** L3 *55°29'N 28°47'E*
Pol-e Khomri **78** B4
35°57'N 68°42'E
Polokwane **101** D2
23°53'S 29°27'E
Poltava **85** H3 *49°34'N 34°34'E*
Polyarnyy **89** M5
69°12'N 33°27'E
Polynesia, island group **59** I3
Pomio **63** G2 *5°31'S 151°31'E*
Ponca City **109** E3
36°42'N 97°5'W
Ponce **111** F2 *18°0'N 66°37'W*
Pondicherry **79** D2
11°56'N 79°50'E
Pond Inlet **107** K5
72°41'N 78°0'W
Pondo **63** G3 *4°33'S 151°39'E*
Pono **62** C2 *6°18'S 134°35'E*
Ponta Grossa **113** F4
25°5'S 50°10'W

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Pontes e Lacerda **117** D2
15°13′S 59°21′W
Pontiac, Canada **107** J2
42°39′N 83°17′W
Pontiac, United States of America **109** F4
42°39′N 83°17′W
Pontianak **70** B2 *0°2′S 109°19′E*
Pontic Mountains **87** H3
Pontic Steppe, plateau **80** C4
Pooncarie **26** C3
33°23′S 142°34′E
Poopo, Lake **117** C2
Popayan **116** B4 *2°25′N 76°37′W*
Popiltah Lake **26** B3
Popocatepetl, mountain **110** C2
19°1′N 98°39′W
Popondetta **23** C6
8°46′S 148°15′E
Porbandar **78** B3
21°40′N 69°40′E
Porcupine River **106** D4
Porepunkah **35** E2
36°42′S 146°55′E
Porgera **62** E2 *5°24′S 143°7′E*
Pori **89** K4 *61°29′N 21°46′E*
Porirua **65** F4 *41°8′S 174°49′E*
Po River **87** E3
Porlamar **111** F2 *10°58′N 63°51′W*
Poronaysk **93** O3
49°14′N 143°5′E
Porpoise Bay **57** G3
Port Albert **35** E1
38°40′S 146°41′E
Port Arthur, Australia **39** E1
43°9′S 147°51′E
Port Arthur, United States of America **110** C3
29°54′N 93°56′W
Port Augusta **43** F4
32°30′S 137°46′E
Port-au-Prince **111** E2
18°33′N 72°20′W
Port Blair **79** E2 *11°40′N 92°44′E*
Port Broughton **43** F4
33°36′S 137°56′E
Port Burwell **107** L4
60°16′N 64°44′W
Port Campbell **34** C1
38°37′S 143°0′E
Port Campbell National Park **34** C1
Port Chalmers **65** D2
45°49′S 170°36′E
Port Charlotte **111** D3
27°0′N 82°6′W
Port Clinton **43** F3
34°13′S 138°1′E
Port Davey **39** C1
43°20′S 145°57′E
Port Elizabeth **101** D1
33°58′S 25°36′E
Port Fairy **34** C1
38°23′S 142°14′E
Port-Gentil **100** B4
0°43′S 8°47′E
Port Harcourt **100** B5
4°49′N 7°0′E
Port Hardy **108** B5
50°43′N 127°30′W
Port Hedland **58** B3
20°19′S 119°36′E
Portimao **90** C4 *37°8′N 8°32′W*
Port Jackson **27** G3
33°50′S 151°16′E
Port Keats / Wadeye **62** C1
14°14′S 129°31′E
Portland, Cape **39** E4
40°44′S 147°56′E
Portland, Maine **109** H4
43°40′N 70°15′W
Portland, New South Wales **27** F3 *33°21′S 149°59′E*
Portland, Oregon **108** B4
45°31′N 122°41′W
Portland, Victoria **34** B1
38°21′S 141°36′E
Portland Bay **34** B1
38°19′S 141°38′E
Port Langdon **62** D1
Port Lavaca **110** C3
28°37′N 96°38′W
Port Lincoln **43** F3
34°44′S 135°52′E
Port Louis **101** G2
20°10′S 57°30′E
Port Macdonnell **43** H1
38°3′S 140°42′E
Port Macquarie **27** H4
31°26′S 152°55′E
Port-Menier **107** L2
49°49′N 64°21′W
Port Moresby **23** C6
9°28′S 147°12′E
Porto **84** D3 *41°9′N 8°37′W*
Porto Alegre **119** E3
30°3′S 51°12′W
Port-of-Spain **111** F2
10°39′N 61°31′W
Porto Nacional **117** E2
10°42′S 48°25′W
Porto-Novo **100** B5
6°29′N 2°37′E
Porto Santana **117** D3
0°2′S 51°11′W
Porto Velho **117** C3
8°45′S 63°54′W
Port Phillip **35** D1
38°4′S 144°49′E
Port Pirie **13** D2 *33°11′S 137°59′E*
Port Said **83** B4 *31°16′N 32°17′E*
Port Shepstone **101** E1
30°43′S 30°28′E
Portsmouth **88** F2
50°48′N 1°5′W
Port Sorell **39** D3
41°10′S 146°33′E
Port Stephens **27** H3
32°42′S 152°9′E
Port St Johns **101** E1
31°38′S 29°32′E
Port Sudan **83** B2
19°37′N 37°13′E
Portugal, republic **66** B4
Port Vila **59** G4 *17°44′S 168°19′E*
Port Vincent **43** G3
34°47′S 137°52′E
Port Welshpool **35** E1
38°42′S 146°27′E
Porvoo **89** L4 *60°24′N 25°40′E*
Posadas **119** D4 *27°21′S 55°53′W*
Poso **71** D2 *1°23′S 120°46′E*
Potchefstroom **101** D2
26°42′S 27°6′E
Potiskum **100** C6 *11°43′N 11°5′E*
Potosi **117** C2 *19°34′S 65°45′W*
Potsdam **89** I2 *52°24′N 13°4′E*
Powell, Lake **108** C3
Powell River **108** B5
49°53′N 124°33′W
Poza Rica de Hidalgo **110** C3
20°33′N 97°28′W
Poznan **85** F4 *52°24′N 16°54′E*
Pozo Almonte **117** C1
20°16′S 69°48′W
Prachin Buri **70** B4
14°3′N 101°23′E
Prachuap Khiri Khan **73** C3
11°48′N 99°48′E
Prague **85** F4 *50°5′N 14°28′E*
Praia **94** B6 *14°55′N 23°31′W*
Praslin, island **101** G4
Praya **71** C2 *8°43′S 116°18′E*
Presidente Prudente **117** D1
22°7′S 51°23′W
Presidio **110** B3
29°38′N 104°16′W
Presov **89** K1 *49°0′N 21°14′E*
Pretoria **101** D2 *25°42′S 28°14′E*
Prey Veng **73** D3
11°29′N 105°19′E
Pribilof Islands **106** B3
Price **108** C3 *39°36′N 110°49′W*
Prieska **101** D2 *29°40′S 22°44′E*
Prijedor **91** H5 *44°59′N 16°42′E*
Prime Seal Island **39** E4
Primrose Sands **39** E2
42°53′S 147°40′E
Prince Albert **109** D5
53°12′N 105°45′W
Prince Alfred, Cape **107** F5
74°20′N 124°46′W
Prince Charles Island **107** K4
Prince Edward Island **107** L2
Prince George **106** F3
53°55′N 122°46′W
Prince of Wales Island **62** E1
10°41′S 142°11′E
Prince Patrick Island **107** F5
Prince Regent National Park **47** E5
Prince Rupert **106** E3
54°19′N 130°20′W
Princess Charlotte Bay **23** B5
14°20′S 143°58′E
Princess Elisabeth, Antarctic base **55** A3 *71°34′S 23°12′E*
Prince William Sound **106** D3
Principe, island **95** E5
Principe, island **100** B5
Pripet Marshes **87** G4
Pripet River **89** L2
Pristina **85** G3 *42°40′N 21°10′E*
Probolinggo **71** C2 *7°45′S 113°9′E*
Proddatur **79** C2
14°45′N 78°34′E
Professor Julio Escudero, Antarctic base **55** P2
62°13′S 58°58′W
Progreso **110** C3
21°17′N 89°40′W
Progress, Antarctic base **55** D3
69°23′S 76°23′E
Prokopyevsk **93** I4
53°54′N 86°43′E
Proserpine **13** E3
20°25′S 148°35′E
Providence **109** G4
41°49′N 71°25′W
Providence Atoll, island **101** G4
Providencia, island **111** D2
13°21′N 81°22′W
Provideniya **93** S5
64°25′N 173°14′W
Provo **108** C4 *40°15′N 111°38′W*
Prudhoe Bay **106** D5
70°18′N 148°40′W
Prut River **91** J6
Przemysl **89** K1 *49°47′N 22°47′E*
Pskov **85** G4 *57°50′N 28°20′E*
Pskoyskoye Ozera **87** G4
Pucallpa **116** B3 *8°22′S 74°32′W*
Puducherry, state **79** D2
Puebla **110** C2 *19°3′N 98°12′W*
Pueblo **109** D3 *38°17′N 104°38′W*
Puerto Aisen **119** B2
45°24′S 72°42′W
Puerto Armuelles **111** D1
8°17′N 82°52′W
Puerto Ayacucho **111** F1
5°40′N 67°37′W
Puerto Barrios **110** D2
15°43′N 88°36′W
Puerto Berrio **111** E1
6°29′N 74°25′W
Puerto Cabello **111** F2
10°28′N 68°10′W
Puerto Cabezas **111** D2
14°2′N 83°23′W
Puerto Carreno **111** F1
6°11′N 67°30′W
Puerto Deseado **119** C2
47°45′S 65°54′W
Puerto la Cruz **111** F2
10°10′N 64°41′W
Puerto Limon **111** D2
10°0′N 83°2′W
Puerto Madryn **119** C2
42°46′S 65°2′W
Puerto Maldonado **117** C2
12°36′S 69°11′W
Puerto Montt **119** B2
41°28′S 72°56′W
Puerto Natales **119** B1
51°43′S 72°31′W

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Puerto Pinasco **117** **D1**
22°38′S 57°47′W
Puerto Princesa **71** **C3**
9°45′N 119°45′E
Puerto Quijarro **117** **D2**
17°47′S 57°46′W
Puerto Rico, island **103** **M3**
Puerto Rico, dependency **111** **F2**
Puerto Rico Trench **111** **F2**
Puerto San Julian **119** **C2**
49°18′S 67°43′W
Puerto Suarez **117** **D2**
18°57′S 57°51′W
Puerto Vallarta **110** **B3**
20°41′N 105°15′W
Puerto Varas **119** **B2**
41°20′S 72°59′W
Pukaki, Lake **65** **D2**
Pukapuka, island **59** **I4**
Pukekohe **65** **F6** *37°11′S 174°57′E*
Pula **91** **G5** *44°52′N 13°51′E*
Pulag, Mount **71** **D4**
16°35′N 120°53′E
Pune **79** **C2** *18°32′N 73°51′E*
Punjab, state **79** **C4**
Punjab, foothills **81** **F3**
Puno **117** **B2** *15°50′S 70°2′W*
Punta Arenas **119** **B1**
53°10′S 70°56′W
Punta Prieta **110** **A3**
28°56′N 114°10′W
Puntarenas, Costa Rica **111** **D1**
9°58′N 84°50′W
Punto Fijo **111** **F2** *11°43′N 70°13′W*
Purari River **63** **E2**
Puri **79** **D2** *19°49′N 85°54′E*
Purnia **79** **D3** *25°47′N 87°29′E*
Purnululu National Park **51** **B6**
Pur River **93** **H5**
Pursat **70** **B4** *12°32′N 103°55′E*
Purus River **117** **C3**
Putorana Plateau **93** **J5**
Putumayo River **116** **B3**
Puysegur Point **65** **B1**
46°9′S 166°36′E
Pyatigorsk **80** **C4** *44°5′N 43°5′E*
Pyay **79** **E2** *18°49′N 95°13′E*
Pyongsan, North Korea **77** **B4**
38°20′N 126°23′E
Pyongyang, North Korea **77** **B4**
39°1′N 125°45′E
Pyramid Hill **35** **D2**
36°3′S 144°7′E
Pyramid Lake **108** **C4**
Pyrenees, range **86** **E3**
Pyu **79** **E2** *18°29′N 96°26′E*

Q

Qaanaaq **107** **L5**
77°29′N 69°20′W
Qairouan **91** **F4** *35°41′N 10°6′E*
Qalat **78** **B4** *32°7′N 66°53′E*
Qal at Bishah **83** **C3**
20°1′N 42°36′E
Qal eh-ye Now **81** **E3**
34°59′N 63°8′E
Qamdo **79** **E4** *31°10′N 97°14′E*
Qamea, island **61** **E4**
16°46′S 179°44′W
Qaminis **91** **H3** *31°40′N 20°1′E*
Qaraghandy **74** **B5**
49°53′N 73°7′E
Qarani **61** **D3** *17°57′S 179°18′E*
Qarazhal **92** **G3** *48°2′N 70°48′E*
Qardho **83** **C1** *9°30′N 49°10′E*
Qarqaraly **81** **F4** *49°25′N 75°28′E*
Qarshi **78** **B4** *38°52′N 65°48′E*
Qasr-e Shirin **80** **C3**
34°31′N 45°35′E
Qasr Farafra **83** **A3**
27°4′N 27°58′E
Qasserine **91** **F4** *35°11′N 8°50′E*
Qatar, kingdom **66** **E3**
Qattara Depression **83** **A3**
Qazaly **92** **G3** *45°46′N 62°6′E*
Qazvin **83** **D4** *36°16′N 50°0′E*
Qena **83** **B3** *26°9′N 32°43′E*
Qeqertarsuaq, island **107** **M5**
Qeqertarsuaq Tunua, bay **107** **M4**
Qeqertasuaq **107** **M4**
69°15′N 53°34′W
Qingan **77** **B6** *46°52′N 127°31′E*
Qingdao **67** **H4** *36°6′N 120°20′E*
Qinggang **77** **B6** *46°41′N 126°6′E*
Qinghai, state **79** **E4**
Qinghai Lake **79** **E4**
Qinhuangdao **75** **G4**
39°56′N 119°37′E
Qinzhou **73** **E6**
Qiqihar **77** **B6** *47°21′N 123°59′E*
Qishn **83** **D2** *15°28′N 51°38′E*
Qitaihe **77** **C5** *45°48′N 130°51′E*
Qizilqum Desert **83** **E5**
Qom **83** **D4** *34°39′N 50°57′E*
Qomsheh **83** **D4** *32°1′N 51°52′E*
Quairading **47** **C2** *32°1′S 117°24′E*
Quambatook **34** **C3**
35°51′S 143°31′E
Quang Ngai **71** **B4**
15°9′N 108°50′E
Quang Tri **70** **B4**
16°45′N 107°12′E
Quanzhou **75** **F2**
24°54′N 119°35′E
Quchan **78** **A4** *37°7′N 58°30′E*
Queanbeyan **31** **E4**
35°21′S 149°14′E
Queanbeyan River **31** **F3**
Quebec, province **109** **G4**
Queen Charlotte Islands **105** **F7**
Queen Charlotte Sound **106** **F3**
Queen Elizabeth Islands **105** **I10**
Queen Mary Coast **57** **E3**
Queen Maud Land **57** **A3**
Queenscliff **35** **D1**
38°16′S 144°40′E
Queensland, state **27** **E5**
Queenstown, Australia **39** **C2**
42°5′S 145°33′E
Queenstown, New Zealand **65** **C2** *45°2′S 168°40′E*
Queenstown, South Africa **101** **D1** *31°54′S 26°53′E*
Quelimane **101** **E3**
17°53′S 36°53′E
Queretaro **110** **C3**
20°38′N 100°23′W
Quesada **111** **D2**
10°20′N 84°26′W
Quetta **78** **B4** *30°13′N 67°1′E*
Quetzaltenango **110** **C2**
14°50′N 91°31′W
Quibala **100** **C3** *10°44′S 14°59′E*
Quibdo **111** **E1** *5°41′N 76°40′W*
Quiemo **79** **D4** *38°8′N 85°32′E*
Quilian Mountains **75** **D3**
Quilpie **23** **B2** *26°37′S 144°16′E*
Quincy **109** **E3** *39°56′N 91°25′W*
Qui Nhon **71** **C4** *13°47′N 109°11′E*
Quipungo **100** **C3**
14°50′S 14°33′E
Quirindi **27** **G4** *31°30′S 150°41′E*
Quito **116** **B3** *0°13′S 78°30′W*
Qulan **81** **F4** *42°55′N 72°42′E*
Qulsary **81** **D4** *46°59′N 54°1′E*
Qunghirot **83** **D5** *43°4′N 58°54′E*
Quorn **43** **G4** *32°21′S 138°3′E*
Qurghonteppa **78** **B4**
37°50′N 68°46′E
Qusmuryn **92** **G4**
52°27′N 64°36′E
Qyzylorda **92** **G3**
44°48′N 65°28′E

R

Raba **71** **C2** *8°27′S 119°46′E*
Rabat **90** **C3** *34°2′N 6°50′W*
Rabaul **63** **G3** *4°12′S 152°9′E*
Rabi, island **61** **E4**
16°30′S 179°58′W
Rabulu **61** **C3** *17°26′S 177°57′E*
Race, Cape **107** **M2**
46°40′N 53°5′W
Rach Gia **70** **B3** *10°1′N 105°5′E*
Radhwa, Mount **83** **B3**
24°44′N 38°18′E
Radisson **107** **K3**
53°47′N 77°37′W
Radom **89** **K2** *51°24′N 21°10′E*
Radstock, Cape **43** **D4**
33°12′S 134°20′E
Rafaela **119** **C3** *31°15′S 61°30′W*
Rafha **83** **C3** *29°37′N 43°30′E*
Ragusa **91** **G4** *36°56′N 14°44′E*
Rahimyar Khan **78** **C3**
28°25′N 70°18′E
Raichur **79** **C2** *16°13′N 77°21′E*
Railton **39** **D3** *41°21′S 146°25′E*
Rainbow **34** **C3** *35°54′S 142°0′E*
Rainforests of the Atsinanana **101** **G3**
Rainier, Mount **108** **B4**
46°53′N 121°46′W
Rainy Lake **109** **E4**
Raipur **79** **D3** *21°14′N 81°38′E*
Rairaimatuku Plateau **61** **B3**
Raiwaqa **61** **B2** *18°3′S 177°34′E*
Rajahmundry **79** **D2**
17°2′N 81°47′E
Rajapalaiyam **79** **C1**
9°25′N 77°35′E
Rajasthan, state **79** **C3**
Rajkot **78** **C3** *22°19′N 70°48′E*
Rajshahi **79** **D3** *24°23′N 88°36′E*
Rakiraki **61** **C3** *17°22′S 178°10′E*
Raleigh **109** **G3** *35°49′N 78°39′W*
Ram, Mount **83** **B3**
29°36′N 35°24′E
Rambutyo Island **63** **F3**
2°19′S 147°47′E
Ramingining **51** **E8**
12°20′S 134°56′E
Ramlo, Mount **83** **C2**
13°24′N 41°44′E
Rancagua **119** **B3**
34°10′S 70°44′W
Ranchi **79** **D3** *23°22′N 85°20′E*
Ranfurly **65** **C2** *45°8′S 170°7′E*
Rangiora **65** **E3** *43°19′S 172°36′E*
Rangitaiki River **65** **G5**
Rangitata River **65** **D3**
Rangpur **79** **D3** *25°45′N 89°17′E*
Rankin Inlet **107** **I4**
62°49′N 92°6′W
Rann of Kutch **78** **B3**
Ranong **73** **B2** *9°58′N 98°38′E*
Ranongga, island **63** **H2**
7°54′S 156°33′E
Ransiki **62** **C3** *1°31′S 134°11′E*
Rantekombola, mountain **71** **D2**
3°21′S 120°1′E
Rapid City **109** **D4**
44°5′N 103°14′W
Rarotonga, island **59** **J3**
Ras al Khaymah **83** **D3**
25°47′N 55°57′E
Ra's Banas, cape **83** **B3**
23°57′N 35°47′E
Ras Dashan, mountain **99** **G3**
13°14′N 38°22′E
Ras Dejen, mountain **83** **B2**
13°14′N 38°22′E
Rashid **91** **J3** *31°28′N 30°23′E*
Rasht **83** **D4** *37°18′N 49°38′E*
Ra's al Had, cape **83** **E3**
22°32′N 59°51′E
Ra's Fartak, cape **83** **D2**
15°41′N 52°14′E
Ras Kasar, cape **83** **B2**
18°5′N 38°34′E
Ra's Sharbathat, cape **83** **D2**
18°10′N 56°34′E
Rason, Lake **47** **D3**
Ratchaburi **79** **E2**
13°33′N 99°49′E
Ratlam **79** **C3** *23°21′N 75°2′E*
Raub **70** **B3** *3°48′N 101°51′E*
Raukumara Range **65** **G5**
38°4′S 177°49′E
Raurkela **79** **D3** *22°14′N 84°50′E*
Ravenna **91** **G5** *44°25′N 12°13′E*
Ravensthorpe **47** **D2**
33°35′S 120°3′E

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Raviravi **61** **C2** *18°22′S 178°8′E*
Rawalpindi **79** **C4**
33°36′N 73°2′E
Rawlinna **47** **E2** *31°1′S 125°19′E*
Rawlins **108** **D4** *41°47′N 107°14′W*
Rawson **35** **E2** *37°57′S 146°24′E*
Raya, mountain **71** **C2**
0°40′S 112°41′E
Raymond Terrace **27** **G3**
32°46′S 151°45′E
Rayong **79** **F2** *12°40′N 101°17′E*
Reading **88** **F2** *51°28′N 0°59′W*
Rebecca, Lake **47** **D3**
Rebiana Sand Sea, desert **99** **F4**
Rebun Island **77** **F5**
45°24′N 141°1′E
Recife **117** **F3** *8°4′S 34°55′W*
Red Basin **79** **F3**
Red Cliffs **34** **C3** *34°19′S 142°11′E*
Red Deer **108** **C5**
52°16′N 113°48′W
Redding **108** **B4**
40°35′N 122°23′W
Red Lake **109** **E4**
Red River **110** **C4**
Red Sea **83** **B3**
Redwood National Park **108** **B4**
Regensburg **89** **I1** *49°1′N 12°7′E*
Reggane **90** **E2** *26°42′N 0°10′E*
Reggio di Calabria **91** **H4**
38°7′N 15°38′E
Regina **109** **D5**
50°27′N 104°37′W
Rehoboth **101** **C2** *23°19′S 17°5′E*
Reims **89** **G1** *49°15′N 4°2′E*
Reindeer Lake **107** **H3**
Reinga, Cape **65** **E7**
Remanso **117** **E3** *9°36′S 42°7′W*
Remarkable, Mount,
South Australia **43** **F4**
32°48′S 138°10′E
Remarkable, Mount,
Western Australia **47** **E5**
17°12′S 127°38′E
Rendova, island **63** **H2**
8°31′S 157°15′E
Renmark **34** **B3** *34°10′S 140°45′E*
Rennell, island **63** **H1**
Rennes **84** **D3** *48°6′N 1°40′W*
Reno **108** **C3** *39°32′N 119°49′W*
Repulse Bay, Australia **23** **C3**
20°33′S 148°45′E
Repulse Bay, Canada **107** **J4**
66°32′N 86°17′W
Resistencia **119** **D4**
27°28′S 58°59′W
Resita **91** **I6** *45°18′N 21°53′E*
Resolute **107** **I5** *74°41′N 94°54′W*
Resolution Island **107** **L4**
Reunion, dependency **101** **G2**
Reunion, island **97** **J2**
Revillagigedo Islands **110** **A2**
Reyes **117** **C2** *14°19′S 67°22′W*
Reykjavik **84** **B5** *64°9′N 21°57′W*
Reynosa **110** **C3** *26°5′N 98°18′W*
Rezekne **89** **L3** *56°30′N 27°19′E*
Rhinelander **109** **E4**
45°38′N 89°25′W
Rhine River **85** **E3**
Rhode Island, state **109** **G4**
Rhodes, island **87** **G2**
Rhone River **87** **E3**
Ribeirao Preto **117** **E1**
21°10′S 47°50′W
Riberalta **117** **C2** *10°59′S 66°6′W*
Richland **108** **C4**
46°18′N 119°17′W
Richmond, New South Wales **27**
G3 *33°36′S 150°45′E*
Richmond, New Zealand **65** **E4**
41°20′S 173°10′E
Richmond, Queensland **23** **B3**
20°44′S 143°9′E
Richmond, Tasmania **39** **E2**
42°44′S 147°26′E
Richmond, Utah **108** **C3**
38°46′N 112°5′W
Richmond, Virginia **109** **G3**
37°33′N 77°27′W
Rida **83** **C2** *14°26′N 44°50′E*
Ridgley **39** **C3** *41°9′S 145°50′E*
Rifstangi, island **107** **Q4**
66°32′N 16°8′W
Riga **85** **G4** *56°57′N 24°6′E*
Riga, Gulf of **87** **G4**
Rijeka **91** **G6** *45°20′N 14°27′E*
Rimouski **109** **H4**
48°26′N 68°31′W
Rincon del Bonete, Lake **119** **D3**
Ringarooma **39** **E3**
41°15′S 147°44′E
Ringarooma Bay **39** **E4**
40°51′S 147°49′E
Ringgi **63** **H2** *8°4′S 157°7′E*
Ringkobing **89** **H3** *56°8′N 8°8′E*
Ringwood **51** **E3**
23°50′S 134°57′E
Rinyirru / Lakefield National
Park **23** **B5**
Rio Abiseo National Park **116** **B3**
Rio Branco **117** **C3**
9°58′S 67°48′W
Rio Colorado **119** **C3**
38°58′S 64°5′W
Rio Cuarto **119** **C3**
33°8′S 64°21′W
Rio de Janeiro **117** **E1**
22°55′S 43°14′W
Rio Gallegos **119** **C1**
51°38′S 69°13′W
Rio Grande, Argentina **119** **C1**
53°47′S 67°42′W
Rio Grande, Brazil **119** **D3**
32°3′S 52°7′W
Riohacha **111** **E2** *11°32′N 72°55′W*
Rio Platano Biosphere Reserve
111 **D2**
Rishiri Island **77** **F5**
45°10′N 141°12′E
Ritscher Upland **57** **R3**
Rivera **119** **D3** *30°54′S 55°34′W*
Riverina **35** **D3**
River Plate **119** **D3**
Riverton, Australia **43** **G3**
34°9′S 138°45′E
Riverton, New Zealand **65** **C1**
46°20′S 168°1′E
Riverton, United States
of America **108** **D4**
43°2′N 108°24′W
Riviere-du-Loup **109** **G4**
47°50′N 69°32′W
Rivne **85** **G4** *50°37′N 26°15′E*
Riyadh **83** **C3** *24°39′N 46°46′E*
Rize **83** **C5** *41°1′N 40°31′E*
Roanne **91** **E6** *46°2′N 4°4′E*
Robbins Island **39** **C4**
Robe, Mount **26** **B4**
31°39′S 141°20′E
Robe **43** **G2** *37°10′S 139°46′E*
Robinson River **51** **F6**
16°45′S 136°59′E
Robinvale **34** **C3**
34°35′S 142°46′E
Robore **117** **D2** *18°20′S 59°46′W*
Rob Roy, island **63** **H2**
7°25′S 157°45′E
Rob Roy, Mount **31** **D3**
35°30′S 149°8′E
Robson, Mount **106** **G3**
53°7′N 119°9′W
Roca, Cape **90** **B4**
Rochester, Australia **35** **D2**
36°22′S 144°42′E
Rochester, Minnesota **109** **E4**
44°1′N 92°28′W
Rochester, New York **109** **G4**
43°10′N 77°37′W
Rockford **109** **F4** *42°16′N 89°4′W*
Rockhampton **13** **F3**
23°22′S 150°31′E
Rockhampton Downs **51** **E5**
18°57′S 135°12′E
Rockingham **47** **B2**
32°17′S 115°44′E
Rock Island **109** **F4**
41°30′N 90°32′W
Rock Islands Southern Lagoon
71 **E3**
Rocklands Reservoir **34** **C2**
Rocky Cape National Park **39**
C4
Rocky Mountains **105** **H6**
Rodos **83** **A4** *36°26′N 28°13′E*
Roebourne **47** **C4**
20°46′S 117°9′E
Roebuck Bay **12** **C4**
Rohtak **79** **C3** *28°54′N 76°35′E*
Roi Et **73** **C4** *16°3′N 103°39′E*
Rokeby **39** **E2** *42°53′S 147°26′E*
Rokugo, Cape **77** **E3**
37°30′N 137°18′E
Roma **23** **C2** *26°34′S 148°47′E*
Romang, island **62** **B2**
7°35′S 127°23′E
Romania, republic **85** **G3**
Rome **85** **F3** *41°54′N 12°29′E*
Roncador Reef **63** **H2**
Rondonopolis **117** **D2**
16°28′S 54°38′W
Ronne Entrance **57** **N3**
Ronne Ice Shelf **55** **O3**
Roon, island **62** **C3**
2°24′S 134°34′E
Roosevelt Island **55** **J3**
Roper River **51** **D7**
Roper Valley **51** **E7**
14°56′S 134°1′E
Roraima, Mount **111** **F1**
5°9′N 60°46′W
Rorvik **89** **I4** *64°52′N 11°12′E*
Rosario, Argentina **119** **C3**
32°57′S 60°40′W
Rosario, Paraguay **117** **D1**
24°25′S 57°6′W
Roseau **111** **F2** *15°18′N 61°23′W*
Rosebery **39** **C3**
41°47′S 145°32′E
Roseburg **108** **B4**
43°13′N 123°21′W
Rosedale **35** **E1** *38°9′S 146°47′E*
Rosenheim **91** **G6** *47°51′N 12°8′E*
Roslavl **89** **M2** *53°57′N 32°52′E*
Ross **39** **E2** *42°2′S 147°30′E*
Ross Dependency, Antarctic
territory **55** **J2**
Rossel Island **63** **G1**
11°20′S 154°12′E
Ross Island **57** **I3**
Ross Ice Shelf **55** **J4**
Ross Sea **55** **J3**
Rostock **89** **I2** *54°4′N 12°9′E*
Rostov **66** **D4** *47°14′N 39°43′E*
Roswell **110** **B4** *33°24′N 104°31′W*
Rota, island **67** **J3**
Rothera, Antarctic base **55** **O3**
67°34′S 68°8′W
Rotorua **65** **F5** *38°8′S 176°15′E*
Rotorua, Lake **65** **E3**
Rotterdam **85** **E4** *51°55′N 4°29′E*
Rotuma, island **59** **G4**
Rouen **84** **E3** *49°26′N 1°5′E*
Round Island Passage **61** **B4**
Round Mountain **27** **H4**
30°26′S 152°14′E
Rouyn-Noranda **107** **K2**
48°15′N 79°2′W
Rovaniemi **89** **L5**
66°30′N 25°43′E
Rowley Shoals **47** **C5**
Roxas **71** **D4** *11°35′N 122°45′E*
Roxborough Downs **51** **G3**
22°31′S 138°50′E
Roxby Downs **43** **F5**
30°33′S 136°54′E
Royal Australian Mint **31** **D5**
35°19′S 149°6′E
Royal Chitwan National Park
79 **D3**
Royalla **31** **E3** *35°31′S 149°9′E*
Ruahine Range **65** **G5**
40°1′S 176°5′E
Ruapehu, Mount **65** **F5**
39°17′S 175°34′E
Rubtsovsk **74** **C5** *51°31′N 81°13′E*

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Rudall River National Park **47** **D4**
Rudny **92** **G4** *52°57'N 63°8'E*
Rufiji River **101** **E4**
Rumberpon, island **62** **C3** *1°47's 134°13'E*
Rum Cay, island **111** **E3** *23°41'N 74°51'W*
Runaway, Cape **65** **H6**
Rupanyup **34** **C2** *36°38's 142°38'E*
Rupert Coast **57** **L3**
Rurrenabaque **117** **C2** *14°28's 67°34'W*
Rusanovo **93** **F6** *70°36'N 56°22'E*
Ruse **85** **G3** *43°51'N 25°58'E*
Rushworth **35** **D2** *36°35's 145°1'E*
Russell Islands **63** **H2**
Russian Federation, republic **85** **I4**
Russkaya, Antarctic base **55** **L3** *74°46's 136°52'W*
Rustavi **83** **C5** *41°34'N 45°3'E*
Rustenburg **101** **D2** *25°39's 27°14'E*
Ruteng **71** **D2** *8°37's 120°28'E*
Rutherglen **35** **E2** *36°3's 146°28'E*
Ruvuma River **101** **E3**
Rwanda, republic **101** **D4**
Rwenzori National Park **101** **E5**
Ryazan **85** **I4** *54°37'N 39°43'E*
Rybinsk **85** **H4** *58°3'N 38°49'E*
Rybinsk Reservoir **87** **I4**
Ryukyu Islands **77** **C1**
Rzeszow **89** **K2** *50°4'N 22°0'E*
Rzhev **89** **M3** *56°15'N 34°20'E*

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Saarbrucken **89** **H1** *49°15'N 6°58'E*
Saaremaa, island **87** **G4**
Sabah, state **71** **C3**
Sabang **70** **A3** *5°53'N 95°19'E*
Sabaya **117** **C2** *19°1's 68°23'W*
Sabha **91** **G2** *27°2'N 14°26'E*
Sabinas Hidalgo **110** **B3** *26°31'N 100°11'W*
Sable, Cape **105** **K4**
Sable Island **107** **M2** *43°56'N 59°55'W*
Sabra, Cape **62** **C3** *2°13's 132°20'E*
Sabzewar **78** **A4** *36°13'N 57°38'E*
Sacramento **108** **B3** *38°35'N 121°28'W*
Sacramento River **108** **B3**
Sadah, Yemen **83** **C2** *16°56'N 43°51'E*
Sadiqabad, Pakistan **78** **B3** *28°18'N 70°8'E*
Sado Island **77** **E4** *37°57'N 138°21'E*
Safford **110** **B4** *32°50'N 109°42'W*
Safi **98** **C5** *32°19'N 9°14'W*
Safonovo **89** **M3** *55°9'N 33°13'E*
Sagami Bay **77** **E3**
Sagar **79** **C3** *23°51'N 78°45'E*
Sagarmatha National Park **79** **D3**
Saginaw **109** **F4** *43°25'N 83°57'W*
Sagua la Grande **111** **E3** *22°49'N 80°4'W*
Sahara Desert **99** **E4**
Saharan Atlas, range **90** **D3**
Saharanpur **79** **C3** *29°58'N 77°33'E*
Sahel, plain **83** **A2**
Sahiwal **79** **C4** *30°40'N 73°7'E*
Saibao Island **62** **E2** *9°27's 142°39'E*
Saida, Algeria **90** **E3** *34°50'N 0°8'E*
Saida, Lebanon **91** **K3** *33°34'N 35°22'E*
Saidabad, Iran **83** **D3** *29°28'N 55°44'E*
Saidu **81** **F3** *34°45'N 72°21'E*
Saigo **77** **D3** *36°14'N 133°20'E*
Sailalevu **61** **E4** *16°58's 180°0'E*
Sailolof **62** **C3** *1°14's 130°48'E*
Saimaa, Lake **87** **G5**
St Arnaud **34** **C2** *36°37's 143°16'E*
St Arnaud Range National Park **34** **C2**
St Augustine **111** **D3** *29°54'N 81°19'W*
St Barthelemy, dependency **111** **F2**
St Charles **109** **G3** *38°36'N 76°56'W*
St Clair, Lake **39** **D3**
St Cloud **109** **E4** *45°34'N 94°10'W*
St Croix, island **111** **F2** *17°46'N 64°46'W*
Sainte-Marie, Cape **101** **F2** *25°36's 45°8'E*
Saint-Etienne, France **85** **E3** *45°26'N 4°23'E*
St Francis, Cape **101** **D1** *34°10's 24°49'E*
St George, Australia **27** **F5** *28°2's 148°35'E*
St George, Cape **63** **G3** *4°47's 152°54'E*
St George, United States of America **108** **C3** *37°6'N 113°35'W*
Saint George's, Grenada **111** **F2** *12°3'N 61°44'W*
Saint-Georges, Canada **109** **G4** *46°7'N 70°40'W*
St Georges Channel **63** **G3**
St Helena **96** **D3**
St Helens **39** **F3** *41°19's 148°15'E*
St Helens, Mount **108** **B4** *46°6'N 122°18'W*
St Helens Point **39** **F3** *41°17's 148°21'E*
St James, Cape **106** **E3** *51°56'N 131°1'W*
Saint John's, Antigua and Barbuda **111** **F2** *17°7'N 61°51'W*
St John's, Canada **107** **M2** *47°35'N 52°41'W*
St Joseph **109** **E3** *39°46'N 94°51'W*
St Kilda **88** **E3**
St Kitts and Nevis, independent state **111** **F2**
St Lawrence **13** **F3** *22°21's 149°32'E*
St Lawrence, Gulf of **109** **H4**
St Lawrence Island **106** **A4**
St Lawrence River **109** **H4**
St Leonards **39** **E3** *41°27's 147°12'E*
Saint-Louis, Senegal **98** **B3** *16°1'N 16°31'W*
St Louis, United States of America **109** **F3** *38°38'N 90°15'W*
St Lucia, independent state **111** **G2**
St Martin, dependency **111** **F2**
St Mary Peak **43** **G5** *31°30's 138°33'E*
St Marys **39** **F3** *41°35's 148°11'E*
St Mathieu, Point **86** **D3** *48°20'N 4°46'W*
St Matthew Island **106** **A3**
St Matthias Group, island group **63** **F3**
St Paul **109** **E4** *44°57'N 93°5'W*
St Petersburg, Russia **85** **H4** *59°56'N 30°19'E*
St Petersburg, United States of America **111** **D3** *27°46'N 82°41'W*
Saint Pierre and Miquelon, dependency **107** **M2** *46°56'N 56°20'W*
St Vincent, Cape **90** **C4** *37°2'N 8°58'W*
Saint Vincent, island **111** **F2** *13°16'N 61°12'W*
St Vincent and the Grenadines, independent state **111** **F2**
Saipan, island **67** **J3**
Sajama, mountain **115** **E5** *18°6's 68°52'W*
Sakai **77** **D3** *34°34'N 135°30'E*
Sakakawea, Lake **109** **D4**
Sakami, Lake **107** **K3**
Sakar Island **63** **F2** *5°27's 148°6'E*
Sakata **77** **E4** *38°55'N 139°51'E*
Sakhalin, island **77** **F6**
Sakhon Nakhon **73** **D4** *17°10'N 104°9'E*
Saki **83** **C5** *41°12'N 47°10'E*
Sakon Nakhon **70** **B4** *17°10'N 104°9'E*
Sakurajima, mountain **77** **C2** *31°35'N 130°39'E*
Salado River **119** **C4**
Salalah **83** **D2** *17°2'N 54°5'E*
Salamanca, Mexico **110** **B3** *20°34'N 101°12'W*
Salamanca, Spain **90** **D5** *40°58'N 5°40'W*
Salar de Arizaro **117** **C1**
Salar de Atacama **117** **C1**
Salar de Coipasa **117** **C2**
Salar de Pipanaco **119** **C4**
Salar de Punta Negra **117** **C1**
Salar de Uyuni **117** **C1**
Salatiga **71** **C2** *7°19's 110°29'E*
Salavat **85** **J4** *53°22'N 55°56'E*
Salawati, island **62** **C3** *1°6's 130°56'E*
Sale **35** **E1** *38°7's 147°4'E*
Salekhard **93** **G5** *66°32'N 66°37'E*
Salem, India **79** **C2** *11°40'N 78°11'E*
Salem, United States of America **108** **B4** *44°56'N 123°1'W*
Salerno **91** **H5** *40°41'N 14°46'E*
Salina **109** **E3** *38°49'N 97°36'W*
Salina Cruz **110** **C2** *16°10'N 95°12'W*
Salinas **108** **B3** *36°41'N 121°38'W*
Salinas, Point **100** **C3** *12°50's 12°56'E*
Salinas de Ambargasta **119** **C4**
Salinopolis **117** **E3** *0°37's 47°20'W*
Salluit **107** **K4** *62°11'N 75°40'W*
Salmon **108** **C4** *45°11'N 113°54'W*
Salonga National Park **101** **D4**
Salsk **80** **C4** *46°29'N 41°33'E*
Salta **117** **C1** *24°47's 65°25'W*
Saltillo **110** **B3** *25°25'N 101°0'W*
Salt Lake **26** **C4**
Salt Lake City **108** **C4** *40°47'N 111°56'W*
Salto **119** **D3** *31°23's 57°58'W*
Salton Sea **108** **C3**
Salum **91** **J3** *31°34'N 25°9'E*
Salvador **117** **F2** *12°58's 38°29'W*
Salween River **79** **E3**
Salzburg **85** **F3** *47°49'N 13°2'E*
Samalut **91** **K2** *28°18'N 30°43'E*
Samandagi **83** **B4** *36°7'N 35°56'E*
Samar, island **71** **D4**
Samara **85** **J4** *53°12'N 50°9'E*
Samarai **63** **G1** *10°30's 150°36'E*
Samarinda **71** **C2** *0°30's 117°9'E*
Samarqand **92** **G2** *39°40'N 66°57'E*
Sambalpur **79** **D3** *21°28'N 83°58'E*
Samoa, independent state **59** **H4**
Sampit **71** **C2** *2°32's 112°57'E*

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Samsun **83** **B5** *41°17′N 36°21′E*
Samuel, Mount **51** **D5** *19°41′S 134°9′E*
Samut Prakan **79** **F2** *13°36′N 100°37′E*
Samut Songkhram **73** **B3** *13°25′N 100°0′E*
Sanaa **83** **C2** *15°21′N 44°12′E*
Sanae IV, Antarctic base **55** **Q3** *71°40′S 2°51′W*
Sanana, island **62** **B3** *2°23′S 126°1′E*
Sanandaj **83** **C4** *35°18′N 47°1′E*
San Andres, island **111** **D2** *12°31′N 81°43′W*
San Angelo **110** **B4** *31°28′N 100°26′W*
San Antonio **110** **C3** *29°29′N 98°31′W*
San Antonio, Cape, Argentina **119** **D3** *36°23′S 56°39′W*
San Antonio, Cape, Cuba **109** **F2** *21°51′N 84°55′W*
San Antonio de los Banos **111** **D3** *22°53′N 82°30′W*
San Antonio Oeste **119** **C2** *40°44′S 64°56′W*
San Bernardino **108** **C3** *34°7′N 117°18′W*
San Bernardo **119** **B3** *33°36′S 70°42′W*
San Blas, Cape **111** **D3** *29°43′N 85°16′W*
San Borja **117** **C2** *14°49′S 66°51′W*
San Carlos **71** **D4** *10°33′N 123°23′E*
San Carlos de Bariloche **119** **B2** *41°9′S 71°18′W*
San Cristobal **111** **E1** *7°46′N 72°15′W*
San Cristobal de Las Casas **110** **C2** *16°45′N 92°38′W*
Sancti Spiritus **111** **E3** *21°56′N 79°27′W*
Sandakan **71** **C3** *5°51′N 119°6′E*
San Diego **110** **A4** *32°49′N 117°11′W*
San Diego, Cape **119** **C1** *54°38′S 65°13′W*
Sandnes **89** **H3** *58°51′N 5°41′E*
Sandover River **51** **E3**
Sand Sea of Calanscio, desert **91** **I2**
Sandstone **47** **C3** *27°59′S 119°18′E*
Sandy Cape **39** **B3** *41°25′S 144°45′E*
San Felipe, Chile **119** **B3** *32°45′S 70°43′W*
San Felipe, Mexico **110** **A4** *31°1′N 114°51′W*
San Felix, island **113** **D4**
San Fernando, Chile **119** **B3** *34°35′S 70°59′W*
San Fernando, Mexico **110** **C3** *24°51′N 98°10′W*
San Fernando de Apure **111** **F1** *7°54′N 67°28′W*
Sanford **111** **D3** *28°47′N 81°17′W*
San Francisco **108** **B3** *37°46′N 122°25′W*
San Francisco de Macoris **111** **F2** *19°18′N 70°15′W*
Sangan, Mount **78** **B4** *33°28′N 64°36′E*
Sanganeb Marine National Park **83** **B2**
Sangay National Park **116** **B3**
Sangha Trinational **100** **C5**
Sangihe Islands **71** **D3**
Sangli **79** **C2** *16°52′N 74°35′E*
San Ignacio, Bolivia **117** **C2** *16°22′S 60°58′W*
San Ignacio, Mexico **110** **A3** *27°21′N 113°7′W*
San Javier **117** **C2** *16°17′S 62°30′W*
San Jorge, Gulf of **119** **C2**
San Jorge, island **63** **H2** *8°25′S 159°37′E*
San Jose, Bolivia **117** **C2** *17°51′S 60°47′W*
San Jose, Costa Rica **111** **D1** *9°56′N 84°5′W*
San Jose, Guatemala **110** **C2** *13°56′N 90°49′W*
San Jose, United States of America **106** **F1** *37°18′N 121°51′W*
San Jose Island **108** **D2** *N N*
San Juan, Argentina **119** **C3** *31°33′S 68°31′W*
San Juan, Puerto Rico **111** **F2** *18°26′N 66°8′W*
San Juan Bautista **117** **D1** *26°41′S 57°9′W*
San Juan del Norte **111** **D2** *10°55′N 83°42′W*
San Juan del Rio **110** **C3** *20°23′N 100°0′W*
San Juan del Sur **111** **D2** *11°15′N 85°52′W*
Sanliurfa **85** **H2** *37°10′N 38°48′E*
San Lorenzo, mountain **119** **C2** *47°24′S 72°0′W*
San Lucas, Cape **108** **D2** *22°53′N 109°58′W*
San Luis **119** **C3** *33°18′S 66°21′W*
San Luis Obispo **108** **B3** *35°17′N 120°40′W*
San Luis Potosi **110** **B3** *22°10′N 101°0′W*
San Marcos **110** **C3** *29°53′N 97°56′W*
San Marino, independent state **85** **F3** *43°56′N 12°27′E*
San Martin **119** **C3** *33°4′S 68°29′W*
San Martin, Antarctic base **55** **O3** *68°8′S 67°6′W*
San Mat'as, Gulf of **119** **C2**
San Mateo **108** **B3** *37°33′N 122°19′W*
San Miguel **110** **D2** *13°29′N 88°11′W*
San Miguel de Tucuman **117** **C1** *26°49′S 65°13′W*
San Nicolas **119** **D3** *33°20′S 60°14′W*
San Pablo **71** **D4** *14°4′N 121°19′E*
San Pedro **117** **D1** *24°5′S 57°5′W*
San-Pedro **98** **C2** *4°46′N 6°38′W*
San Pedro de las Colonias **110** **B3** *25°46′N 102°59′W*
San Pedro de Macoris **111** **E2** *18°27′N 69°18′W*
San Pedro River **110** **B3**
San Pedro Sula **110** **D2** *15°30′N 88°2′W*
San Quintin **110** **A4** *30°29′N 115°57′W*
San Rafael **119** **C3** *34°36′S 68°20′W*
San Ramon **117** **C2** *13°17′S 64°43′W*
San Remo **91** **F5** *43°50′N 7°36′E*
San Salvador, island **111** **E3** *24°3′N 74°30′W*
San Salvador **110** **C2** *13°43′N 89°12′W*
San Salvador de Jujuy **117** **C1** *24°11′S 65°18′W*
San Sebastian **84** **D3** *43°19′N 1°59′W*
Santa Ana, Bolivia **117** **C2** *13°46′S 65°35′W*
Santa Ana, Guatemala **110** **C2** *14°0′N 89°34′W*
Santa Barbara, Mexico **110** **B3** *26°48′N 105°49′W*
Santa Barbara, United States of America **108** **B3** *34°26′N 119°43′W*
Santa Clara **109** **G2** *22°24′N 79°58′W*
Santa Cruz **117** **C2** *17°45′S 63°14′W*
Santa Cruz de Tenerife **98** **B4** *28°28′N 16°15′W*
Santa Fe, Argentina **119** **C3** *31°37′S 60°41′W*
Santa Fe, United States of America **109** **D3** *35°41′N 105°56′W*
Santa Isabel, island **63** **H2**
Santa Maria, Brazil **119** **D4** *29°41′S 53°48′W*
Santa Maria, United States of America **108** **B3** *34°56′N 120°26′W*
Santa Marta, Cape **100** **C3** *13°52′S 12°25′E*
Santa Marta, Colombia **111** **E2** *11°15′N 74°12′W*
Santander **90** **D5** *43°23′N 3°48′W*
Santarem **117** **D3** *2°26′S 54°42′W*
Santa Rita **111** **E2** *10°32′N 71°30′W*
Santa Rosa, Argentina **119** **C3** *36°37′S 64°18′W*
Santa Rosa, Brazil **119** **D4** *27°52′S 54°28′W*
Santa Rosa, United States of America **108** **B3** *38°27′N 122°42′W*
Santa Rosa de Copan **110** **D2** *14°46′N 88°47′W*
Santa Rosalia **110** **A3** *27°19′N 112°17′W*
Santa Teresa **51** **E2** *24°8′S 134°22′E*
Sante Marta Grande, Cape **119** **E4** *28°33′S 48°44′W*
Santiago, Chile **119** **B3** *33°27′S 70°40′W*
Santiago, Dominican Republic **111** **E2** *19°30′N 70°40′W*
Santiago, Panama **111** **D1** *8°6′N 80°59′W*
Santiago de Compostela **90** **B5** *42°53′N 8°32′W*
Santiago de Cuba **111** **E2** *20°2′N 75°49′W*
Santiago del Estero **119** **C4** *27°47′S 64°16′W*
Santiago Tuxtla **110** **C2** *18°28′N 95°18′W*
Santo Andre **119** **E4** *23°39′S 46°32′W*
Santo Angelo **119** **D4** *28°18′S 54°17′W*
Santo Domingo **111** **E2** *18°28′N 69°54′W*
Santos **117** **E1** *23°57′S 46°20′W*
San Valentin, mountain **119** **B2** *46°36′S 73°21′W*
Sanya **71** **B4** *18°16′N 109°30′E*
Sao Borja **119** **D4** *28°40′S 56°1′W*
Sao Francisco do Sul **117** **E1** *26°14′S 48°36′W*
Sao Francisco River **117** **E2**
Sao Jose dos Campos **113** **G4** *23°12′S 45°53′W*
Sao Jose dos Pinhais **119** **D4** *25°34′S 49°11′W*
Sao Lourenco do Sul **119** **D3** *31°22′S 51°59′W*
Sao Luis **117** **E3** *2°31′S 44°16′W*
Sao Luiz Gonzaga **119** **D4** *28°25′S 54°58′W*
Sao Paulo **117** **E1** *23°33′S 46°38′W*
Sao Roque, Cape **117** **F3** *5°12′S 35°27′W*
Sao Sebastiao, Cape **101** **E2** *22°7′S 35°29′E*
Sao Tome **98** **D2** *0°20′N 6°44′E*
Sao Tome, island **100** **B4**
Sao Tome and Principe, republic **95** **E5**
Saparua **62** **B3** *3°34′S 128°39′E*
Sapporo **67** **J4** *43°5′N 141°20′E*
Saraburi **70** **B4** *14°32′N 100°53′E*
Sarajevo **85** **F3** *43°51′N 18°23′E*
Saransk **85** **I4** *54°10′N 45°11′E*

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Sarapul **81** **D5** *56°29′N 53°48′E*
Sarasota **111** **D3** *27°20′N 82°32′W*
Saratov **85** **I4** *51°35′N 46°2′E*
Saravan **73** **D4** *15°43′N 106°26′E*
Sarawak, state **71** **C3**
Sardinia, island **87** **E2**
Sargodha **79** **C4** *32°5′N 72°40′E*
Sarh **101** **C5** *9°9′N 18°23′E*
Sari **92** **F2** *36°33′N 53°6′E*
Sarina **23** **C3** *21°25′S 149°13′E*
Sarmi **71** **E2** *1°52′S 138°43′E*
Sarnia **109** **F4** *42°58′N 82°24′W*
Sarqan **93** **I3** *45°25′N 79°55′E*
Saryarka Steppe and Lakes of Northern Kazakhstan **74** **A4**
Sarygamysh Koli **81** **D4**
Saryshaghan **92** **H3** *46°7′N 73°37′E*
Sasamungga **63** **H2** *6°59′S 156°45′E*
Saseba **77** **C2** *33°10′N 129°43′E*
Sasebo **75** **G3** *33°10′N 129°43′E*
Saskatchewan, province **109** **D5**
Saskatchewan River **109** **D5**
Saskatoon **107** **H3** *52°10′N 106°40′W*
Sassari **91** **F5** *40°44′N 8°34′E*
Sata, Cape **93** **N2** *31°2′N 130°42′E*
Satui **71** **C2** *3°47′S 115°26′E*
Satun **73** **B2** *6°37′N 100°4′E*
Saudarkrokur **107** **P4** *65°45′N 19°38′W*
Saudi Arabia, kingdom **85** **I2**
Sault Ste Marie **109** **F4** *46°30′N 84°21′W*
Saumlakki **62** **C2** *7°52′S 131°18′E*
Saurimo **101** **C4** *9°40′S 20°23′E*
Savage River **39** **C3**
Savage River National Park **39** **C3**
Savannah **111** **D4** *32°1′N 81°7′W*
Savannah River **109** **F3**
Savannakhet **73** **D4** *16°32′N 104°46′E*
Saveh **83** **C4** *35°1′N 50°20′E*
Save River **101** **E2**
Savetskaya Gavan **75** **H4** *48°58′N 140°16′E*
Savonlinna **89** **L4** *61°52′N 28°53′E*
Savusavu **61** **C3** *17°33′S 178°15′E*
Savusavu Bay **61** **D4**
Sawahlunto **70** **B2** *0°40′S 100°47′E*
Sawaieke **61** **D3** *17°59′S 179°16′E*
Sawani **61** **C4** *16°54′S 178°49′E*
Saweda, Cape **62** **C3** *0°50′S 134°3′E*
Saweni **61** **B3** *17°55′S 177°48′E*
Sawtell **27** **H4** *30°22′S 153°6′E*
Saywun **83** **C2** *15°57′N 48°47′E*
Scabby, Mount **31** **B2** *35°46′S 148°51′E*
Scamander **39** **F3** *41°27′S 148°16′E*
Scandinavian Peninsula **89** **J4**
Scarborough **88** **F2** *54°17′N 0°26′W*
Schanck, Cape **35** **D1** *38°30′S 144°53′E*
Schefferville **107** **L3** *54°48′N 66°49′W*
Schouten Island **39** **F2**
Scone **27** **G3** *32°3′S 150°52′E*
Scotia Sea **119** **D1**
Scott, Antarctic base **55** **J3** *77°51′S 166°45′E*
Scott Reef **47** **D6**
Scottsbluff **109** **D4** *41°52′N 103°40′W*
Scottsdale, Australia **39** **E3** *41°9′S 147°31′E*
Scottsdale, United States of America **108** **C3** *33°42′N 111°52′W*
Scranton **109** **G4** *41°25′N 75°40′W*
Sea Lake **34** **C3** *35°30′S 142°51′E*
Seal Islands **35** **E1**
Seaspray **35** **E1** *38°23′S 147°11′E*
Seattle **108** **B4** *47°34′N 122°21′W*
Sefra **90** **D3** *32°46′N 0°35′W*
Segezha **89** **M4** *63°45′N 34°19′E*
Segou **98** **C3** *13°26′N 6°16′W*
Seine River **89** **G1**
Sekondi **98** **C2** *4°57′N 1°42′W*
Selaru, island **62** **C2** *8°10′S 130°59′E*
Sele **62** **C3** *1°19′S 131°5′E*
Selenga River **75** **E4**
Selfoss **107** **P4** *63°56′N 20°0′W*
Selma **110** **D4** *32°24′N 87°1′W*
Selous Game Reserve **101** **E4**
Selu, island **62** **C2** *7°33′S 130°54′E*
Selvas, foothills **117** **C3**
Semarang **71** **C2** *6°58′S 110°25′E*
Semey **74** **B5** *50°26′N 80°17′E*
Semnan **92** **F2** *35°33′N 53°22′E*
Sena Madureira **117** **C3** *9°4′S 68°40′W*
Senanga **101** **D3** *16°7′S 23°16′E*
Sendai **77** **F4** *38°17′N 141°1′E*
Senegal River **98** **B3**
Senegal, republic **98** **B3**
Senmonorom **73** **D3**
Sennar **83** **B2** *13°33′N 33°36′E*
Sensuntepeque **110** **D2** *13°53′N 88°38′W*
Sentry Box Mountain **31** **C2** *35°49′S 148°54′E*
Seoul **77** **B3** *37°34′N 126°0′E*
Sept-Iles **107** **L3** *50°19′N 66°22′W*
Seram, island **62** **B3** *3°4′S 129°13′E*
Seram Sea **62** **B3**
Serang **70** **B2** *6°7′S 106°9′E*
Serbia, republic **85** **G3**
Serea **61** **C3** *17°51′S 178°18′E*
Seremban **70** **B3** *2°43′N 101°56′E*
Serengeti National Park **99** **G1**
Seres **91** **I5** *41°5′N 23°33′E*
Serov **92** **G4** *59°37′N 60°35′E*
Serowe **101** **D2** *22°23′S 26°43′E*
Serpentine **35** **D2** *36°25′S 143°58′E*
Serpentine Lakes **43** **B6**
Serpukhov **80** **B5** *54°56′N 37°26′E*
Serua, island **62** **B2** *6°18′S 130°3′E*
Serui **62** **D3** *1°53′S 136°15′E*
Sese **61** **D4** *16°22′S 179°48′E*
Sesheke **101** **D3** *17°28′S 24°18′E*
Sete Lagoas **117** **E2** *19°27′S 44°15′W*
Setif **91** **F4** *36°11′N 5°24′E*
Settat **90** **C3** *33°1′N 7°37′W*
Setubal **90** **C4** *38°32′N 8°54′W*
Seul, Lake **107** **I3**
Sevastapol **85** **H3** *44°36′N 33°28′E*
Severnaya Zemlya **69** **G6**
Severn River **107** **I3**
Severodvinsk **85** **H5** *64°34′N 39°50′E*
Severomorsk **89** **M5** *69°4′N 33°25′E*
Severouralsk **92** **G5** *60°9′N 59°58′E*
Seville **84** **D2** *37°24′N 5°59′W*
Seward **106** **C3** *60°8′N 149°28′W*
Seward Peninsula **106** **B4**
Seychelles, republic **101** **G4**
Seymour **35** **D2** *37°2′S 145°8′E*
Sfax **99** **E5** *34°45′N 10°43′E*
Shaanxi, state **75** **E3**
Shache **79** **C4** *38°26′N 77°15′E*
Shackleton Ice Shelf **57** **E3**
Shadrinsk **81** **E5** *56°5′N 63°38′E*
Shah Fuladi, mountain **78** **B4** *34°38′N 67°32′E*
Shahhat **91** **I3** *32°50′N 21°52′E*
Shahjahanpur **79** **D3** *27°53′N 79°54′E*
Shahrud **83** **D4** *36°25′N 54°58′E*
Shakhty **85** **I3** *47°43′N 40°16′E*
Shalaurova **93** **O6** *73°13′N 143°11′E*
Shalqar **92** **F3** *47°50′N 59°37′E*
Sham, Mount **83** **D3** *23°14′N 57°16′E*
Shamattawa **107** **I3** *55°51′N 92°5′W*
Shamva **101** **E3** *17°19′S 31°34′E*
Shanahans Mountain **31** **D2** *35°50′S 149°1′E*
Shandong, state **75** **F3**
Shangdu **75** **F4** *41°33′N 113°32′E*
Shanghai **75** **G3** *31°13′N 121°26′E*
Shangqiu **75** **F3** *34°27′N 115°39′E*
Shangrao **75** **F2** *28°28′N 117°58′E*
Shangzhi **77** **C5** *45°13′N 127°58′E*
Shannons Flat **31** **C1** *35°56′S 148°57′E*
Shan Plateau **73** **B5**
Shantar Islands **93** **N4**
Shantou **75** **F2** *23°22′N 116°40′E*
Shanxi, state **75** **F3**
Shaoguan **75** **F2** *24°48′N 113°35′E*
Shaoxing **75** **G2** *30°0′N 120°34′E*
Shar **81** **G4** *49°36′N 81°3′E*
Sharjah **83** **D3** *25°22′N 55°24′E*
Shark Bay **47** **B3** *24°51′S 113°24′E*
Sharya **92** **E4** *58°23′N 45°31′E*
Shashi **75** **F3** *30°19′N 112°14′E*
Shasta, Mount **108** **B4** *41°25′N 122°12′W*
Shebekino **91** **L7** *50°25′N 36°54′E*
Shebele River **101** **F5**
Sheberghan **78** **B4** *36°39′N 65°44′E*
Sheboygan **109** **F4** *43°45′N 87°43′W*
Shebshi Mountains **100** **C5**
Sheffield, Australia **39** **D3** *41°23′S 146°20′E*
Sheffield, United Kingdom **84** **D4** *53°22′N 1°30′W*
Sheikhu Pura **79** **C4** *31°43′N 73°59′E*
Shelagski, Cape **93** **Q6** *70°6′N 170°26′E*
Shelburne **107** **L2** *43°46′N 65°19′W*
Shelburne Bay **23** **B5** *11°50′S 142°58′E*
Shelikhova Gulf **93** **P4**
Shendi **99** **G3** *16°41′N 33°25′E*
Shenyeng **75** **G4** *41°48′N 123°27′E*
Shenzhen **71** **C5** *22°33′N 114°7′E*
Shepparton **35** **D2** *36°23′S 145°24′E*
Sherbro Island **98** **B2**
Sherman **110** **C4** *33°38′N 96°37′W*
Shetland Islands **86** **D5**
Shibetsu **77** **F5** *44°12′N 142°10′E*
Shield, Cape **62** **D1** *13°20′S 136°21′E*
Shieli **92** **G3** *44°10′N 66°45′E*
Shihezi **75** **C4** *44°18′N 86°2′E*
Shijiazhuang **75** **F3** *38°3′N 114°29′E*
Shikoku, island **77** **D2**
Shiliguri **79** **D3** *26°43′N 88°27′E*
Shilka **75** **F5** *51°52′N 116°2′E*
Shilka River **75** **F5**
Shillong **79** **E3** *25°34′N 91°53′E*
Shimbiris, mountain **83** **C2** *10°44′N 47°15′E*
Shimoga **79** **C2** *13°56′N 75°34′E*
Shimonoseki **77** **C3** *33°58′N 130°57′E*

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Shinyanga **101** **E4**
3°40′S 33°25′E
Shiono, Cape **77** **D2**
33°27′N 135°47′E
Shirakami-Sanchi World Heritage Convention **77** **E4**
Shiraz **66** **E3** *29°38′N 52°34′E*
Shiretoko **77** **G5**
Shiriya, Cape **77** **F4**
41°26′N 141°26′E
Shiyan **75** **F3** *32°34′N 110°47′E*
Shizuishan **75** **E3**
39°14′N 106°46′E
Shizunai **77** **F5** *42°23′N 142°24′E*
Shizuoka **77** **E3**
34°59′N 138°23′E
Shkoder **91** **H5** *42°4′N 19°31′E*
Shoalhaven Bight **27** **G2**
34°52′S 150°50′E
Shoalhaven River **27** **F2**
Shoalwater Bay **23** **D3**
22°24′S 150°25′E
Sholapur **79** **C2** *17°40′N 75°54′E*
Shoreham **35** **D1** *38°26′S 145°3′E*
Shortland Islands **63** **H2**
Shoshone Mountains **108** **C4**
Shostka **89** **M2** *51°52′N 33°29′E*
Showa, Antarctic base **55** **C3**
69°1′S 39°35′E
Shreveport **110** **C4**
32°30′N 93°46′W
Shu **81** **F4** *43°36′N 73°45′E*
Shuangcheng **77** **B5**
45°21′N 126°17′E
Shuangyashan **77** **D6**
46°40′N 131°21′E
Shulan **77** **B5** *44°25′N 126°57′E*
Shumen **91** **J5** *43°16′N 26°56′E*
Shuyang **75** **G3** *34°8′N 119°46′E*
Shwebo **79** **E3** *22°35′N 95°42′E*
Shymkent **74** **B4**
42°19′N 69°36′E
Sian Ka'an **110** **D2**
Siassi **63** **F2** *5°34′S 147°48′E*
Siauliai **89** **K3** *55°56′N 23°20′E*
Sibay **81** **D5** *52°43′N 58°38′E*
Siberia, region **69** **G5**
Siberut, island **70** **A2**
Sibiu **91** **I6** *45°48′N 24°8′E*
Sibolga **70** **A3** *1°45′N 98°48′E*
Sibu **71** **C3** *2°18′N 111°51′E*
Sichuan, state **79** **F4**
Sichuan Basin **79** **F4**
Sichuan Giant Panda Sanctuaries **79** **F4**
Sicily, island **87** **F2**
Sideia Island **63** **G1**
10°38′S 151°1′E
Sidi bel Abbes **90** **E4**
35°11′N 0°38′W
Sidney **109** **D4** *41°8′N 102°59′W*
Sidra, Gulf of **91** **H3**
Siedlce **89** **K2** *52°11′N 22°17′E*
Siem Reap **73** **C3**
13°22′N 103°51′E
Siena **91** **G5** *43°19′N 11°21′E*
Sierra Leone, republic **98** **B2**
Sierra Mojada **110** **B3**
27°17′N 103°17′W
Sierra Morena, range **90** **C4**
Sierra Nevada, range **108** **C3**
Sigatoka **61** **B2** *18°8′S 177°31′E*
Sigatoka River **61** **B3**
Sigoisooinan **70** **A2**
2°4′S 99°39′E
Siirt **80** **C3** *37°57′N 41°56′E*
Sikar **79** **C3** *27°37′N 75°8′E*
Sikasso **98** **C3** *11°19′N 5°41′W*
Sikhote-Alin Range **77** **E5**
Sikhote-Alinsky **75** **H4**
Sikkim, state **79** **D3**
Silvassa **79** **C3** *20°16′N 73°1′E*
Simao **79** **F3** *22°47′N 100°59′E*
Simbo, island **63** **H2**
8°16′S 156°32′E
Simcoe, Lake **109** **G4**
Simeulue, island **70** **A3**
Simferopol **85** **H3**
44°57′N 34°6′E
Simien National Park **83** **B2**
Simla **81** **F3** *31°6′N 77°10′E*
Simpson Desert **43** **F8**
Simpson Desert National Park **51** **G2**
Sinai, Mount **83** **B3**
28°32′N 33°58′E
Sinai Peninsula **83** **B3**
Sincelejo **111** **E1** *9°17′N 75°23′W*
Singapore, island **69** **H2**
Singapore, republic **70** **B3**
Sing Buri **73** **C4**
Singkawang **71** **B3**
0°55′N 108°58′E
Singleton **27** **G3** *32°34′S 151°10′E*
Singleton, Mount **51** **C4**
22°0′S 130°46′E
Sinharaja Forest Reserve **79** **D1**
Sinnamary **117** **D4**
5°23′N 52°58′W
Sinop **80** **B4** *11°51′S 55°28′W*
Sint Maarten, dependency **111** **F2**
Sinuiju **77** **B4** *40°5′N 124°25′E*
Sioux City **109** **E4**
42°30′N 96°24′W
Sioux Falls **109** **E4**
43°33′N 96°44′W
Sioux Lookout **109** **E5**
50°16′N 91°55′W
Siping **77** **B5** *43°10′N 124°20′E*
Si Racha **79** **F2** *13°10′N 100°56′E*
Siracusa **91** **H4** *37°4′N 15°17′E*
Sir Edward Pellew Group, island group **51** **F7**
Sirjan **81** **D2** *29°28′N 55°44′E*
Sirte Desert **99** **E5**
Sir Thomas, Mount **43** **B7**
27°9′S 129°44′E
Sisaket **73** **D4**
Sisophon **79** **F2**
13°35′N 102°59′E
Sisters Beach **39** **C4**
40°55′S 145°34′E
Sitapur **74** **B2** *27°38′N 80°45′E*
Sitia **83** **A4** *35°12′N 26°6′E*
Sitka **106** **E3** *57°4′N 135°20′W*
Sittwe **79** **E3** *20°8′N 92°53′E*
Sivas **91** **L4** *39°45′N 37°2′E*
Siwa **91** **J2** *29°12′N 25°31′E*
Siwalik Hills **79** **D3**
Skagerrak, fjord **87** **E4**
Skagway **106** **E3**
59°27′N 135°19′W
Skeena River **106** **F3**
Skelleftea **89** **K4**
64°46′N 20°57′E
Skien **92** **A4** *59°12′N 9°36′E*
Skikda **98** **D5** *36°53′N 6°54′E*
Skipton **34** **C2** *37°41′S 143°22′E*
Skopje **85** **G3** *42°0′N 21°26′E*
Slantsy **89** **L3** *59°7′N 28°4′E*
Slave River **107** **G4**
Slavgorod **81** **F5** *53°0′N 78°40′E*
Slidell **110** **C4** *30°16′N 89°47′W*
Sligo **88** **E2** *54°16′N 8°29′W*
Sliven **83** **A5** *42°41′N 26°20′E*
Slovakia, republic **85** **F3**
Slovenia, republic **85** **F3**
Slupsk **89** **J2** *54°29′N 17°1′E*
Slyudyanka **93** **K4**
51°39′N 103°42′E
Smallwood Reservoir **107** **L3**
Smara **98** **B4** *26°44′N 11°41′W*
Smithton **39** **C4** *40°51′S 145°7′E*
Smokers Gap **31** **C3**
35°31′S 148°54′E
Smoky Bay **43** **D4**
32°22′S 133°56′E
Smolensk **85** **H4** *54°47′N 32°3′E*
Snake Island **35** **E1**
Snake River **108** **C4**
Snells Beach **65** **F6**
36°25′S 174°44′E
Snow Gum Mountain **31** **B5**
35°16′S 148°40′E
Snowy Mountains **35** **F2**
Snowy River **35** **F2**
Snowy River National Park **35** **F2**
Snug **39** **E1** *43°4′S 147°15′E*
Sobral **117** **E3** *3°41′S 40°21′W*
Sochi **85** **H3** *43°35′N 39°44′E*
Society Islands **59** **J4**
Socorro, Island **110** **A2**
18°47′N 111°0′W
Socorro **110** **B4** *34°4′N 106°54′W*
Socotra, island **83** **D2**
Socotra Archipelago **83** **D2**
Soc Trang **70** **B3**
9°36′N 105°59′E
Sodankyla **89** **L5**
67°25′N 26°36′E
Sodo **101** **E5** *6°54′N 37°45′E*
Sofia **85** **G3** *42°41′N 23°19′E*
Sogamoso **111** **E1**
5°43′N 72°56′W
Sohag **83** **B3** *26°33′N 31°42′E*
Sohano **63** **G2** *5°26′S 154°40′E*
Sokcho **77** **C4** *38°13′N 128°35′E*
Soke **91** **J4** *37°45′N 27°25′E*
Sokol **89** **N3** *59°28′N 40°7′E*
Sokoto **98** **D3** *13°4′N 5°14′E*
Solander Island **65** **B1**
46°34′S 166°54′E
Soledad **111** **E2** *10°55′N 74°46′W*
Sol-Iletsk **81** **D5** *51°10′N 55°0′E*
Solnechnogorsk **89** **N3**
56°11′N 36°59′E
Solomon Islands, independent state **63** **H2**
Solomon Sea **23** **D6**
Somalia, republic **83** **C1**
Somali Peninsula, island group **97** **I5**
Somerset **39** **C3** *41°3′S 145°50′E*
Somerset Island **107** **I5**
Somosomo **61** **E4**
Somosomo Strait **61** **D4**
Sonbong **77** **C5**
42°20′N 130°24′E
Songea **101** **E3** *10°41′S 35°39′E*
Songhua River **77** **B5**
Songkhla **79** **F1** *7°13′N 100°34′E*
Son La **73** **C5** *21°20′N 103°55′E*
Sonsonate **110** **C2**
13°43′N 89°44′W
Son Tay **70** **B5** *21°8′N 105°30′E*
Sorell, Cape **39** **B2**
42°12′S 145°11′E
Sorell, Lake **39** **E2**
Sorocaba **117** **E1**
23°29′S 47°28′W
Sorong **71** **E2** *0°51′S 131°17′E*
Soroti **101** **E5** *1°43′N 33°36′E*
Sorrento **35** **D1** *38°20′S 144°44′E*
Soso **61** **B3** *17°7′S 177°14′E*
Souk Ahras **91** **F4** *36°17′N 7°57′E*
Sousse **91** **G4** *35°50′N 10°38′E*
South Africa, republic **101** **D1**
South Alligator River **51** **D8**
South America **105** **M2**
Southampton **84** **D4**
50°54′N 1°24′W
Southampton Island **107** **J4**
South Andaman, island **79** **E2**
South Arm **39** **E1** *43°2′S 147°25′E*
South Australia, state **34** **B3**
South Bend **109** **F4**
41°41′N 86°15′W
South Bruny National Park **39** **E1**
South Canberra **31** **D5**
35°19′S 149°8′E
South Carolina, state **111** **E4**
South China Karst **79** **F3**
South China Sea **73** **E3**
South Dakota, state **109** **D4**
South East Cape **39** **D1**
43°39′S 146°50′E
South East Forest National Park **35** **F2**
Southend **89** **G2** *51°33′N 0°43′E*

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Southern Alps, range **65** **C2**
Southern Cross **47** **C2**
31°14'S 119°19'E
Southern Indian Lake **107** **I3**
Southern Sierra Madre **105** **I3**
South Esk River **39** **E3**
South Geomagnetic Pole **55** **F3**
78°18'S 111°0'E
South Georgia Island **55** **Q2**
South Goulburn Island **51** **E9**
South Island **65** **C3**
South Korea, republic **75** **G3**
Southland **65** **C1**
South Magnetic Pole **55** **G3**
64°17'S 137°25'E
South Pagai, island **70** **A2**
South Pole **55** **G4** *90°0'S 0°0'E*
South Sandwich Islands **55** **Q2**
South Saskatchewan River **108** **C5**
South Sudan, republic **83** **B1**
South Taranaki Bight **65** **E5**
39°41'S 174°15'E
South West Cape **39** **C1**
43°34'S 146°2'E
Southwest National Park **39** **D1**
South West Rocks **27** **H4**
30°53'S 153°2'E
Southwood National Park **23** **C2**
Sovetsk **89** **K3** *55°4'N 21°53'E*
Sowek **62** **D3** *0°49'S 135°49'E*
Soya, Cape **77** **F5**
45°30'N 141°57'E
Spain, kingdom **84** **D2**
Spalding **43** **G4**
33°30'S 138°36'E
Spanish Town **111** **E2**
17°59'N 76°57'W
Sparti **91** **I4** *37°4'N 22°26'E*
Spassk Dalniy, Russia **77** **D5**
44°36'N 132°49'E
Spencer, Cape **43** **F3**
35°18'S 136°53'E
Spencer **109** **E4** *43°9'N 95°9'W*
Spencer Gulf **43** **F3**
34°30'S 136°55'E
Spencer Mountains **65** **E3**
42°8'S 172°13'E
Spitsbergen, island **93** **B6**
Split **85** **F3** *43°31'N 16°28'E*
Split Lake **107** **I3**
Spokane **108** **C4**
47°40'N 117°25'W
Spratly Islands **71** **C4**
Spring, Mount **31** **D6**
35°6'S 149°5'E
Springbok **101** **C2**
29°40'S 17°53'E
Springfield, Illinois **109** **F3**
39°49'N 89°39'W
Springfield, Massachusetts **109** **G4** *42°7'N 72°35'W*
Springfield, Missouri **109** **E3**
37°11'N 93°19'W
Springfield, Oregon **108** **B4**
44°3'N 122°59'W

Spring Hill **111** **D3**
28°29'N 82°33'W
Springsure **23** **C3** *24°7'S 148°5'E*
Squires, Mount **51** **A1**
26°14'S 127°28'E
Srednye Kuyto, Lake **89** **L5**
Srepok River **70** **B4**
Sri Jawewardenepura Kotte **79** **C1** *6°54'N 79°57'E*
Sri Lanka, republic **79** **D1**
Srinagar **79** **C4** *34°6'N 74°49'E*
Staaten River National Park **23** **B4**
Stanford, Mount **106** **D4**
62°17'N 144°18'W
Stanhope **35** **D2**
36°27'S 144°59'E
Stanley, Australia **39** **C4**
40°46'S 145°18'E
Stanley, United Kingdom **119** **D1**
51°42'S 57°51'W
Stanovoy Range **93** **M4**
Stanthorpe **27** **G5**
28°39'S 151°56'E
Staraya Russa **89** **M3**
58°0'N 31°21'E
Stara Zagora **91** **J5**
42°25'N 25°37'E
Starbuck, island **59** **J5**
Starsy Oskol **85** **H4**
51°18'N 37°50'E
Stavanger **85** **E4** *58°58'N 5°41'E*
Stavropol **85** **I3** *45°3'N 41°59'E*
Stavropol Plateau **87** **I3**
Stawell **34** **C2** *37°3'S 142°47'E*
Steep Point, cape **47** **B3**
26°9'S 113°10'E
Steinkjer **89** **I4** *64°1'N 11°30'E*
Stepanakert **81** **C3**
39°49'N 46°45'E
Sterlitamak **81** **D5**
53°38'N 55°58'E
Stettler **108** **C5** *52°20'N 112°41'W*
Stewart Island **65** **B1**
Stewart River **106** **E4**
Stirling Range National Park **47** **C2**
Stockholm **89** **J3** *59°21'N 18°6'E*
Stoeng Treng **73** **D3**
13°31'N 105°58'E
Stoke **88** **F2** *53°0'N 2°11'W*
Stony Head, cape **39** **E4**
40°59'S 147°1'E
Storm Bay **39** **E1**
43°10'S 147°33'E
Strahan **39** **C2** *42°9'S 145°20'E*
Stralsund **89** **I2** *54°18'N 13°6'E*
Strasbourg **85** **E3**
48°35'N 7°45'E
Stratford, Australia **35** **E2**
37°58'S 147°5'E
Stratford, New Zealand **65** **F5**
39°21'S 174°16'E
Strathalbyn **43** **G3**
35°16'S 138°54'E
Strathgordon **39** **D2**
42°46'S 146°3'E

Strathmerton **35** **D3**
35°56'S 145°29'E
Streaky Bay **43** **D4**
32°36'S 134°7'E
Strike a Light River **31** **E1**
Stromlo, Mount **31** **C5**
35°19'S 149°1'E
Stromlo Observatory, Mount **31** **C5** *35°19'S 149°0'E*
Strzelecki, Mount **51** **D4**
21°9'S 133°53'E
Strzelecki Creek **43** **H6**
Strzelecki Desert **43** **G7**
Strzelecki National Park **39** **F4**
Strzelecki Ranges **35** **E1**
Sturt Creek **47** **E5**
Sturt National Park **26** **B5**
Sturt Plain **51** **B6**
Sturt Stony Desert **43** **G7**
Stuttgart **85** **F3** *48°47'N 9°12'E*
Subotica **91** **H6** *46°4'N 19°41'E*
Suceava **91** **J6** *47°38'N 26°16'E*
Sucre **117** **C2** *19°2'S 65°16'W*
Sudan, republic **83** **B2**
Sudbury **109** **F4**
46°30'N 80°58'W
Sudd, region **101** **D5**
Sudetes Mountains **87** **F4**
Sudirman Range **71** **E2**
Suez, Gulf of **83** **B3**
Suez **83** **B4** *30°0'N 32°33'E*
Sugarloaf Point **27** **H3**
32°27'S 152°32'E
Suhar **83** **D3** *24°22'N 56°44'E*
Suihua **77** **B6** *46°38'N 126°59'E*
Suileng **77** **B6** *47°15'N 127°6'E*
Sukabumi **70** **B2** *6°55'S 106°54'E*
Sukhothai **79** **F2** *17°1'N 99°45'E*
Sukhumi **83** **B5** *43°1'N 41°1'E*
Sukkur **78** **B3** *27°43'N 68°51'E*
Sulaiman Range **78** **C4**
Sula Islands **62** **B3**
Sulawesi, island **62** **B4**
Sullana **116** **A3** *4°53'S 80°41'W*
Sulu Archipelago, island group **71** **D3**
Sulu Sea **71** **C3**
Sumatra, island **70** **B3**
Sumba, island **14** **B5**
Sumbawa, island **14** **B5**
Sumbe **100** **C3** *11°13'S 13°51'E*
Sumenep **71** **C2** *7°0'S 113°51'E*
Sumqayt **92** **F3** *40°35'N 49°38'E*
Sumter **111** **E4** *33°55'N 80°21'W*
Sumy **85** **H4** *50°55'N 34°47'E*
Sunbury **35** **D2** *37°35'S 144°44'E*
Sunchon **77** **B4** *39°25'N 125°56'E*
Sunderland **88** **F2**
54°55'N 1°23'W
Sundsvall **89** **J4** *62°24'N 17°19'E*
Sungaipenuh **70** **B2**
2°4'S 101°24'E
Sungai Petani **79** **E1**
5°39'N 100°29'E
Suntar **93** **L5** *62°9'N 117°38'E*

Suo Sea **77** **D2**
Superior **109** **E4** *46°43'N 92°6'W*
Superior, Lake **109** **F4**
Supham Buri **73** **B4**
Sur **83** **D3** *22°35'N 59°32'E*
Surabaya **71** **C2** *7°15'S 112°45'E*
Surakarta **71** **C2** *7°34'S 110°50'E*
Surat, Australia **23** **C2**
27°9'S 149°4'E
Surat, India **79** **C3**
21°12'N 72°50'E
Surat Thani **79** **F1** *9°9'N 99°20'E*
Surgut **93** **H5** *61°16'N 73°26'E*
Surigao **71** **D3** *9°47'N 125°29'E*
Surin **70** **B4** *14°53'N 103°29'E*
Suriname, republic **117** **D4**
Surt **91** **H3** *31°13'N 16°35'E*
Surtsey, island **88** **B4**
63°13'N 20°26'W
Sussex Inlet **27** **G2**
35°9'S 150°36'E
Sutlej River **79** **C3**
Sutton **31** **E6** *35°10'S 149°15'E*
Suva **61** **C2** *18°8'S 178°27'E*
Suwalki **89** **K2** *54°6'N 22°56'E*
Suwarrow, island **59** **I4**
Suwon **77** **B3** *37°16'N 127°1'E*
Suzhou **75** **F3** *31°18'N 120°37'E*
Svalbard, island **69** **C6**
Svalbard and Jan Mayen Islands, island group **93** **D6**
Svalbard and Jan Mayen Islands, dependency **84** **D6**
Svay Rieng **73** **D3**
Svea, Antarctic base **55** **R3**
74°35'S 11°13'W
Svendborg **89** **I3** *55°4'N 10°37'E*
Svetogorsk **89** **L4**
61°6'N 28°55'E
Svobodnyy **75** **G5**
51°24'N 128°8'E
Swain Reefs, bay **23** **D3**
Swakopmund **100** **C2**
22°40'S 14°32'E
Swan Hill **34** **C3**
35°20'S 143°34'E
Swan Island **39** **F4**
Swan Reach **43** **G3**
34°34'S 139°36'E
Swansea **90** **C7** *51°38'N 3°57'W*
Swaziland, kingdom **101** **E2**
Sweden, kingdom **89** **I4**
Swellendam **101** **D1**
34°1'S 20°26'E
Swift Current **107** **H3**
50°17'N 107°46'W
Switzerland, republic **91** **F6**
Sydney, Australia **58** **D2**
33°55'S 151°11'E
Sydney, Canada **107** **M2**
46°4'N 60°11'W
Syktyvkar **85** **J5**
61°40'N 50°49'E
Sylhet **79** **E3** *24°54'N 91°52'E*
Sylvester Lake **51** **E5**
Syracuse **109** **G4** *43°3'N 76°9'W*

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Syria, republic **85** **H2**
Syrian Desert **83** **C4**
Syr River **92** **G3**
Syvash, sea **91** **K6**
Syzran **85** **I4** *53°10′N 48°29′E*
Szczecin **85** **F4** *53°25′N 14°32′E*
Szeged **85** **F3** *46°15′N 20°9′E*
Szekesfehervar **91** **H6**
47°12′N 18°24′E
Szolnok **91** **I6** *47°11′N 20°11′E*
Szombathely **91** **H6**
47°14′N 16°38′E

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Taal Volcano, mountain **71** **D4**
14°0′N 121°0′E
Tabar Islands **63** **G3**
Tabia **61** **D4** *16°28′s 179°15′E*
Tabora **101** **E4** *5°1′s 32°48′E*
Tabriz **83** **C4** *38°5′N 46°18′E*
Tabuaeran (Fanning), island **59** **J6**
Tabuk **83** **B3** *28°23′N 36°33′E*
Tacheng **74** **C4** *46°45′N 82°57′E*
Tacloban **71** **D4** *11°15′N 125°0′E*
Tacna **119** **B5** *18°0′s 70°15′W*
Tacoma **108** **B4**
47°13′N 122°31′W
Tacuarembo **119** **D3**
31°43′s 55°59′W
Tademait Plateau **90** **E2**
Tadmur **80** **B3** *34°33′N 38°17′E*
Taebaek Range **77** **C4**
Taedong **77** **B4**
40°37′N 125°27′E
Tafemaar **62** **C2** *6°48′s 134°10′E*
Taftan, Mount **78** **B3**
28°30′N 61°7′E
Taganrog **85** **H3** *47°14′N 38°55′E*
Tagula Island **63** **G1**
11°30′s 153°29′E
Tagum **71** **D3** *7°23′N 125°48′E*
Tagus River **84** **D2**
Tahan, Mount **70** **B3**
4°38′N 102°14′E
Tahat, mountain **98** **D4**
23°17′N 5°31′E
Tahiti, island group **59** **K4**
Tahoe, Lake **108** **C3**
Tahoua **98** **D3** *14°54′N 5°16′E*
Taian **75** **F3** *36°12′N 117°7′E*
Taibai Shan, mountain **79** **F4**
33°57′N 107°45′E
Taichung **75** **G2** *24°9′N 120°41′E*
Tailai **77** **A6** *46°23′N 123°25′E*
Tailem Bend **43** **G3**
35°15′s 139°27′E
Tainan **71** **C5** *23°0′N 120°12′E*
Tainaron, Cape **87** **G2**
36°23′N 22°29′E
Tai National Park **98** **C2**
Taipei **75** **G2** *25°2′N 121°34′E*
Taiping **79** **F1** *4°52′N 100°43′E*
Taitung **71** **D5** *22°45′N 121°8′E*
Taiwan **71** **D5**
Taiyuan **75** **F3** *37°53′N 112°33′E*
Taizz **83** **C2** *13°36′N 44°2′E*
Tajikistan, republic **79** **C4**
Tajik National Park **92** **H2**
Tajumulco, mountain **110** **C2**
15°3′N 91°52′W
Tak **79** **E2** *16°53′N 99°8′E*
Takamatsu **77** **D3**
34°21′N 134°3′E
Takaoka **77** **E3** *36°40′N 137°0′E*
Takapuna **65** **F6**
36°47′s 174°47′E
Takeo **70** **B4** *10°59′N 104°47′E*
Talamanca Range-La Amistad Reserves **111** **D1**
Talangbatu **70** **B2**
4°6′s 105°27′E
Talara **116** **A3** *4°35′s 81°17′W*
Talas **92** **H3** *42°31′N 72°15′E*
Talasea **63** **F2** *5°17′s 150°1′E*
Talaud Islands **71** **D3**
Talbingo **35** **F3** *35°35′s 148°18′E*
Talbot **34** **C2** *37°10′s 143°42′E*
Talbot Bay **15** **C4**
Talca **119** **B3** *35°27′s 71°40′W*
Taldyqorghan **74** **B4**
45°0′N 78°24′E
Taliabu, island **62** **B3**
1°50′s 125°59′E
Tall Afar **83** **C4** *36°23′N 42°27′E*
Tallaganda National Park **31** **F2**
Tallahassee **111** **D4**
30°27′N 84°17′W
Tallangatta **35** **E2**
36°13′s 147°11′E
Tallarook **35** **D2** *37°6′s 145°6′E*
Tallinn **85** **G4** *59°26′N 24°44′E*
Tallowwood Point **26** **H4**
Taloqan **81** **E3** *36°44′N 69°32′E*
Talos Dome, Range **57** **I3**
Taloyoak **107** **I4**
69°32′N 93°32′W
Tamale **98** **C2** *9°24′N 0°50′W*
Tamanrasset **98** **D4**
22°47′N 5°31′E
Tambacounda **98** **B3**
13°47′N 13°41′W
Tambo **23** **C3** *24°53′s 146°15′E*
Tambora, Mount **71** **C2**
8°15′s 119°0′E
Tamboritha, Mount **35** **E2**
37°28′s 146°42′E
Tambo River **35** **E2**
Tambov **85** **I4** *52°44′N 41°26′E*
Tamil Nadu, state **79** **C2**
Tampa **109** **F2** *27°57′N 82°28′W*
Tampere **85** **G5** *61°30′N 23°45′E*
Tampico **110** **C3** *22°18′N 97°52′W*
Tamworth **13** **F2** *31°6′s 150°55′E*
Tana, Lake **83** **B2**
Tanabe **77** **D2** *33°42′N 135°24′E*
Tanahmerah **62** **D2**
6°6′s 140°17′E
Tanami **51** **B5** *19°55′s 129°44′E*
Tanami Desert **51** **C5**
Tan An **73** **D3** *10°32′N 106°25′E*
Tanana River **106** **D4**
Tana River **101** **F4**
Tandil **119** **D3** *37°19′s 59°9′W*
Tandou, Lake **26** **B3**
Tanega Island **77** **C2**
30°35′N 130°59′E
Tanga **101** **E4** *5°4′s 39°5′E*
Tanga Islands **63** **G3**
Tangambalanga **35** **E2**
36°15′s 147°2′E
Tanganyika, Lake **101** **E4**
Tangier **90** **C4** *35°45′N 5°50′W*
Tangshan **75** **F3**
39°38′N 119°12′E
Tanimbar Islands, island group **62** **C2**
Tanjungkarang-Telubketung **70** **B2** *5°27′s 105°18′E*
Tanjungpandan **70** **B2**
2°45′s 107°39′E
Tanjungpinang **70** **B3**
0°55′N 104°28′E
Tanna, island **59** **G4**
Tannum Sands **23** **D3**
23°57′s 151°22′E
Tanta **83** **B4** *30°47′N 31°0′E*
Tantangara Reservoir **31** **B2**
Tanunda **43** **G3** *34°31′s 138°58′E*
Tanzania, republic **101** **E4**
Taonan **77** **A5** *45°20′N 122°47′E*
Taormina **91** **H4** *37°59′N 15°20′E*
Taoudenni **98** **C4**
22°40′N 3°59′W
Tapajos River **117** **D3**
Tapi River **79** **C3**
Tara **23** **D2** *27°17′s 150°27′E*
Tarabuco **117** **C2** *19°11′s 64°55′W*
Tarakan **71** **C3** *3°18′N 117°38′E*
Taranto **85** **F3** *40°31′N 17°14′E*
Tarapoto **116** **B3** *6°31′s 76°29′W*
Tarawa **59** **G6** *1°20′N 173°1′E*
Taraz **74** **B4** *42°54′N 71°22′E*
Tarbes **90** **E5** *43°14′N 0°5′E*
Tarcoola **43** **E5** *30°43′s 134°34′E*
Tarcutta **35** **E3** *35°17′s 147°44′E*
Taree **13** **F2** *31°54′s 152°28′E*
Tari **62** **E2** *5°50′s 142°56′E*
Tarija **117** **C1** *21°31′s 64°45′W*
Tarim **83** **C2** *16°14′N 48°57′E*
Tarim Basin **79** **D4**
Tarim River **74** **C4**
Tarin Kowt **81** **E3**
32°38′N 65°52′E
Taritatu River **62** **D3**
Tarlac **71** **D4** *15°29′N 120°35′E*
Tarnow **89** **K1** *50°1′N 20°59′E*
Taroom **23** **C2** *25°38′s 149°48′E*
Tarrabool Lake **51** **E5**
Tarra–Bulga National Park **35** **E1**
Tarragona **90** **E5** *41°7′N 1°15′E*
Tarsus **83** **B4** *36°55′N 34°53′E*
Tartagal **117** **C1** *22°33′s 63°49′W*
Tartu **85** **G4** *58°23′N 26°43′E*
Tartus **83** **B4** *34°53′N 35°53′E*
Tarutung **70** **A3** *2°1′N 98°58′E*
Tashkent **67** **F4** *41°19′N 69°18′E*
Tashtagol **81** **G5**
52°48′N 87°52′E
Tasikmalaya **70** **B2**
7°20′s 108°13′E
Taskul **63** **G3** *2°34′s 150°23′E*
Tasman, Mount **65** **D3**
43°33′s 170°12′E
Tasman Bay **65** **E4**
41°11′s 173°10′E
Tasmania, island **15** **E1**
Tasmania, state **39** **D2**
Tasman Mountains **65** **E4**
41°1′s 172°21′E
Tasman National Park **39** **F1**
Tasman Peninsula **39** **F1**
43°06′s 147°51′E
Tasman Sea **39** **F1**
Tassili n'Ajjer National Park **90** **F2**
Tatarsk **81** **F5** *55°13′N 75°58′E*
Tatar Strait **93** **O3**
Tathra **27** **G1** *36°44′s 149°59′E*
Tatura **35** **D2** *36°26′s 145°14′E*
Tau **61** **B3** *17°58′s 177°17′E*
Taumarunui **65** **F5**
38°53′s 175°16′E
Taunggyi **73** **B5** *20°47′N 97°2′E*
Taungoo **79** **E2** *18°57′N 96°25′E*
Taupo **65** **F5** *38°42′s 176°5′E*
Taupo, Lake **65** **F5**
Tauranga **59** **G2** *37°42′s 176°9′E*
Tauroa Point **65** **E7**
35°10′s 173°4′E
Taurus Mountains **83** **B4**
Tauu, island **63** **H3**
Taveuni, island **61** **D3**
Tavua, island **61** **B3**
17°37′s 177°6′E
Tavuki **61** **C1** *19°5′s 178°7′E*
Tawau **71** **C3** *4°16′N 117°54′E*
Tawonga **35** **E2** *36°41′s 147°9′E*
Tay Ninh **73** **D3** *11°19′N 106°9′E*
Tayshet **93** **J4** *55°56′N 97°59′E*
Tayynsha **81** **F5** *53°51′N 69°46′E*
Taza **90** **D3** *34°13′N 4°1′W*
Taz River **93** **I5**
Tbilisi **80** **C4** *41°44′N 44°47′E*
Te Anau **65** **C2** *45°25′s 167°42′E*
Te Anau, Lake **65** **B2**
Te Aroha **65** **F6**
37°32′s 175°43′E
Te Awamutu **65** **F5**
38°1′s 175°19′E
Tebessa **91** **F4** *35°25′N 8°7′E*
Tebingtinggi **70** **A3**
3°20′N 99°8′E
Tecuala **109** **D2**
22°24′N 105°28′W
Tegal **71** **B2** *6°52′s 109°7′E*
Tegucigalpa **110** **D2**
14°6′N 87°13′W
Tehran **81** **D3** *35°40′N 51°25′E*
Tehuantepec **110** **C2**
16°20′N 95°14′W
Tehuantepec, Gulf of **110** **C2**
Teide National Park **98** **B4**

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Tejen **78** **B4** *37°23′N 60°30′E*
Tekapo, Lake **65** **D3**
Tekirdag **83** **A5** *40°59′N 27°31′E*
Te Kuiti **65** **F5** *38°20′S 175°10′E*
Tel Aviv-Yafo **83** **B4** *32°5′N 34°46′E*
Telefomin **62** **E2** *5°7′S 141°38′E*
Telfer **47** **D4** *21°43′S 122°14′E*
Teli **81** **H5** *51°2′N 90°14′E*
Telukbutun **70** **B3** *4°13′N 108°12′E*
Teluk Intan **70** **B3** *4°1′N 101°2′E*
Tematagi, island **59** **K3**
Temirtau **74** **B5** *50°4′N 72°58′E*
Temora **35** **E3** *34°27′S 147°32′E*
Temple **110** **C4** *31°6′N 97°22′W*
Temuco **119** **B3** *38°44′S 72°35′W*
Temuka **65** **D2** *44°15′S 171°17′E*
Tenerife, island **98** **B4**
Tenes **90** **E4** *36°31′N 1°22′E*
Tengchong **79** **E3** *25°2′N 98°28′E*
Tengiz Koli **81** **E5**
Tennant Creek **51** **E5** *19°39′S 134°11′E*
Tennent, Mount **31** **D3** *35°33′S 149°3′E*
Tennessee, state **109** **F3**
Tennessee River **109** **F3**
Tenterfield **27** **H5** *29°3′S 152°1′E*
Teofilo Otoni **117** **E2** *17°52′S 41°30′W*
Tepa **62** **B2** *7°52′S 129°36′E*
Tepic **110** **B3** *21°30′N 104°53′W*
Terang **34** **C1** *38°14′S 142°55′E*
Teresina **117** **E3** *5°6′S 42°47′W*
Terminos Lagoon **110** **C2**
Termiz **78** **B4** *37°14′N 67°16′E*
Ternate **62** **B4** *0°48′N 127°22′E*
Ternopil **89** **L1** *49°32′N 25°35′E*
Terpeniya, Cape **93** **O3** *48°40′N 144°43′E*
Terrace **106** **F3** *54°30′N 128°35′W*
Terre Haute **109** **F3** *39°28′N 87°25′W*
Teshekpuk Lake **106** **C4**
Teshio **77** **F5** *44°54′N 141°46′E*
Teslin Lake **106** **E4**
Tessalit **98** **D4** *20°12′N 1°5′E*
Tessenei **83** **B2** *15°7′N 36°39′E*
Tete **101** **E3** *16°10′S 33°35′E*
Tetepare, island **63** **H2** *8°42′S 157°36′E*
Tethi **61** **B4** *16°48′S 177°31′E*
Tetovo **91** **I5** *42°1′N 20°58′E*
Te Waewae Bay **65** **B1** *46°14′S 167°35′E*
Te Wahipounamu–South West New Zealand **65** **B2**
Texarkana **110** **C4** *33°27′N 94°2′W*
Texas, Australia **27** **G5** *28°51′S 151°10′E*
Texas, state **110** **C4**
Texas City **110** **C3** *29°25′N 94°58′W*
Tezpur **79** **E3** *26°38′N 92°48′E*
Thabana Ntlenyana, mountain **97** **G2** *29°28′S 29°16′E*
Thai Binh **73** **D5** *20°27′N 106°20′E*
Thailand, Gulf of **73** **C3**
Thailand, kingdom **73** **C4**
Thai Nguyen **70** **B5** *21°36′N 105°50′E*
Thakek **70** **B4** *17°25′N 104°50′E*
Thakhek **73** **D4** *17°25′N 104°50′E*
Thamar, Mount **83** **C2** *13°52′N 45°18′E*
Thames **65** **F6** *37°8′S 175°35′E*
Thanh Hoa **70** **B4** *19°49′N 105°48′E*
Thargomindah **23** **B2** *27°60′S 143°49′E*
Tharwa **31** **D3** *35°31′S 149°4′E*
The Ahwar of Southern Iraq **83** **C4**
The Alps, range **87** **E3**
Thebes **91** **I4** *38°23′N 23°23′E*
The Calvados Chain, island group **63** **G1**
The Coorong **43** **G2**
The Dolomites **91** **G6**
The English Company's Islands **62** **D1**
The Entrance **27** **G3** *33°20′S 151°30′E*
The Grampians, range **34** **C2**
The Granites **51** **B4** *20°34′S 130°21′E*
The Hague **85** **E4** *52°5′N 4°16′E*
The Horn **35** **E2** *36°47′S 146°46′E*
Thelon River **107** **H4**
Theodore **13** **E3** *24°57′S 150°5′E*
The Pas **109** **D5** *53°49′N 101°14′W*
The Ridgeway **31** **E4** *35°20′S 149°16′E*
Thermopolis **108** **D4** *43°39′N 108°13′W*
The Rock **35** **E3** *35°16′S 147°7′E*
Thessalon **109** **F4** *46°15′N 83°33′W*
Thessaloniki **85** **G3** *40°42′N 22°53′E*
The Wadden Sea **89** **H2**
the Woods, Lake of **107** **I3**
Thies **98** **B3** *14°49′N 16°56′W*
Thimphu **79** **E3** *27°28′N 89°38′E*
Thiruvananthapuram **79** **C1** *8°30′N 76°57′E*
Thisted **89** **H3** *56°57′N 8°39′E*
Thohoyandou **101** **D2** *22°57′S 30°29′E*
Thompson **107** **I3** *55°45′N 97°52′W*
Thomson River **23** **B3**
Thongwa **79** **E2** *16°45′N 96°31′E*
Thoutata **61** **C3** *18°0′S 178°37′E*
Thredbo **35** **F2** *36°30′S 148°18′E*
Three Hummock Island **39** **B4**
Three Parallel Rivers of Yunnan Protected Areas **79** **F3**
Three Points, Cape **98** **C2** *4°45′N 2°5′W*
Three Sisters **23** **B3** *25°16′S 141°50′E*
Three Springs **47** **C3** *29°32′S 115°46′E*
Three Ways Roadhouse **51** **D5** *19°26′S 134°9′E*
Thrushton National Park **23** **C2**
Thu Dau Mot **73** **D3** *10°58′N 106°39′E*
Thunder Bay **109** **F4** *48°27′N 89°16′W*
Thung Song **79** **F1** *8°9′N 99°44′E*
Thungyai-Huai Kha Khaeng Wildlife Sanctuaries **79** **E2**
Thursday Island **23** **B5** *10°35′S 142°13′E*
Thurston Island **57** **N3**
Tianjin **67** **H4** *39°8′N 117°12′E*
Tian Shan, range **74** **B4**
Tianshui **79** **F4** *34°36′N 105°55′E*
Tiarat **90** **E4** *35°23′N 1°19′E*
Tiber River **91** **G5**
Tibesti Mountains **99** **E4**
Tibet Autonomous Region **79** **D4**
Tibooburra **26** **B5** *29°26′S 142°1′E*
Tidbinbilla Peak **31** **C4** *35°26′S 148°53′E*
Tidbinbilla Range **31** **C4**
Tidjikdja **98** **B3** *18°33′N 11°25′W*
Tidore **71** **D3** *0°42′N 127°26′E*
Tieli **77** **B6** *46°57′N 128°3′E*
Tieling **77** **B5** *42°18′N 123°49′E*
Tien Mountains **69** **F4**
Tierra Del Fuego, island **119** **C1**
Tigris River **83** **C4**
Tihamah, plain **83** **C2**
Tijuana **110** **A4** *32°30′N 117°5′W*
Tikal National Park **110** **C2**
Tikchik Lakes **106** **B3**
Tikhoretsk **91** **L6** *45°51′N 40°8′E*
Tikhvin **89** **M3** *59°39′N 33°31′E*
Tikituru, mountain **61** **B2** *17°59′S 177°54′E*
Tikrit **83** **C4** *34°36′N 43°41′E*
Tiksi **93** **M6** *71°38′N 128°50′E*
Tiliva **61** **C2** *18°58′S 178°27′E*
Tillaberi **98** **D3** *14°13′N 1°27′E*
Tillamook **108** **B4** *45°27′N 123°51′W*
Timaru **65** **D2** *44°23′S 171°13′E*
Timashevsk **91** **L6** *45°37′N 38°57′E*
Timber Creek **51** **C7** *15°39′S 130°29′E*
Timboon **34** **C1** *38°29′S 142°59′E*
Timbuktu **98** **C3** *16°46′N 3°1′W*
Timika **62** **D3** *4°33′S 136°53′E*
Timimoun **90** **E2** *29°14′N 0°16′E*
Timisoara **85** **G3** *45°46′N 21°13′E*
Timmins **109** **F4** *48°28′N 81°20′W*
Timon **117** **E3** *5°7′S 42°51′W*
Timor, island **62** **B2**
Timor-Leste, republic **71** **D2**
Timor Sea **51** **B9**
Tinderry Peak **31** **E2** *35°42′S 149°16′E*
Tinderry Range **31** **E2**
Tindouf **90** **C2** *27°40′N 8°9′W*
Tinggoa **63** **I1** *11°47′S 160°31′E*
Tingha **27** **G4** *29°57′S 151°13′E*
Tinrhert Hamada, desert **91** **G2**
Tintinara **26** **B2** *35°53′S 140°3′E*
Tin Tin Lake **26** **C2**
Tioor, island **62** **C3** *4°49′S 131°44′E*
Tirana **85** **G3** *41°20′N 19°49′E*
Tirari Desert **23** **A2**
Tiraspol **91** **J6** *46°51′N 29°38′E*
Tirat Tsvi **68** **D4**
Tirgu Mures **91** **J6** *46°33′N 24°33′E*
Tirua Point **65** **F5** *38°23′S 174°38′E*
Tiruchchirappalli **79** **C2** *10°49′N 78°41′E*
Tirunelveli **79** **C1** *8°44′N 77°41′E*
Tirupati **79** **C2** *13°39′N 79°25′E*
Tiruppur **79** **C2** *11°5′N 77°20′E*
Tiruvannamalai **79** **D2** *12°16′N 79°6′E*
Tisza River **87** **G3**
Titicaca, Lake **117** **C2**
Tititira Head **65** **C3** *43°38′S 169°26′E*
Titusville **111** **D3** *28°37′N 80°48′W*
Tiwi Islands **62** **B1**
Tizimin **109** **F2** *21°8′N 88°9′W*
Tlaxcala **110** **C2** *19°19′N 98°14′W*
Tlimcen **90** **D3** *34°53′N 1°19′W*
Toamasina **101** **G3** *18°11′S 49°24′E*
Toba, Lake **70** **A3**
Tobago, island **111** **F2** *11°16′N 60°41′W*
Tobo **62** **C3** *3°33′S 130°13′E*
Toboali **70** **B2** *3°1′S 106°27′E*
Tobol **81** **E5** *52°42′N 62°34′E*
Tobol River **92** **G4**
Tobolsk **92** **G4** *58°12′N 68°16′E*
Tocantins River **117** **E2**
Tocopilla **117** **C1** *22°5′S 70°11′W*
Tocumwal **35** **D3** *35°49′S 145°34′E*
Todd River **51** **E2**
Togo, republic **100** **B5**
Togowere **61** **B3** *17°24′S 178°1′E*
Toi, Cape **77** **C2** *31°26′N 131°19′E*
Tokar **83** **B2** *18°26′N 37°44′E*
Tokara Group, island **77** **C1** *29°38′N 129°44′E*

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Tokara Strait **77** **C1**
Tokelau, dependency **59** **H5**
Tokmak **81** **F4** *42°50′N 75°17′E*
Tokoroa **65** **G5** *38°13′S 175°51′E*
Toktogul **81** **F4** *41°53′N 72°56′E*
Tokuno Island **77** **C1**
27°47′N 128°57′E
Tokushima **77** **D3**
34°4′N 134°33′E
Tokyo **67** **J4** *35°41′N 139°45′E*
Tolanaro **101** **F2** *25°2′S 46°59′E*
Toledo **109** **F4** *41°40′N 83°35′W*
Toliara **101** **F2** *23°21′S 43°41′E*
Tolima, mountain **116** **B4**
4°38′N 75°18′W
Toluca **110** **B2** *19°20′N 99°40′W*
Tolyatti **85** **I4** *53°29′N 49°32′E*
Tomah **109** **F4** *43°59′N 90°30′W*
Tomakomai **77** **F5**
42°39′N 141°33′E
Tomanivi, mountain **61** **C3**
17°38′S 178°1′E
Tombstone **110** **A4**
31°43′N 110°4′W
Tombua **100** **C3** *15°48′S 11°52′E*
Tom Price **47** **C4**
22°42′S 117°47′E
Tomsk **67** **G5** *56°30′N 84°59′E*
Tonga, kingdom **59** **H3**
Tongala **35** **D2** *36°15′S 144°57′E*
Tongariro National Park **65** **G5**
Tongatapu, island **59** **H3**
Tongchuan **75** **E3**
35°5′N 109°2′E
Tonghua **77** **B4** *41°41′N 125°45′E*
Tongliao **75** **G4** *43°37′N 122°16′E*
Tongtian River **79** **E4**
Tonk **79** **C3** *26°9′N 75°47′E*
Tonkin, Gulf of **73** **D5**
Tonle Sap **73** **C3**
Tonopah **108** **C3** *38°4′N 117°14′W*
Tooleybuc **34** **C3**
35°2′S 143°20′E
Tooms Lake **39** **E2**
Toora **35** **E1** *38°40′S 146°20′E*
Toorale National Park **27** **D4**
Toowoomba **23** **D2**
27°34′S 151°57′E
Topeka **109** **E3** *39°3′N 95°40′W*
Top Springs **51** **D6**
16°33′S 131°51′E
Tor, Antarctic base **55** **A3**
71°53′S 5°10′E
Torbat-e Jam **78** **A4**
35°13′N 60°37′E
Toronto **109** **F4**
43°42′N 79°25′W
Tororo **101** **E5** *0°43′N 34°10′E*
Torquay **35** **D1** *38°20′S 144°20′E*
Torrens, Lake **43** **F5**
Torreon **110** **B3**
25°34′N 103°25′W
Torres del Paine, mountain **119** **B1** *50°58′S 73°0′W*
Torres Strait **23** **B6**
Torshavn **88** **E4** *62°2′N 6°49′W*
Tortuga, island **111** **F2**
10°57′N 65°17′W
Torzhok **89** **M3** *57°2′N 34°59′E*
Totness **117** **D4** *5°53′N 56°19′W*
Totoya, island **61** **E2**
18°58′S 179°48′W
Tottenham **27** **E3**
32°15′S 147°21′E
Tottori **77** **D3** *35°30′N 134°14′E*
Toubkal, Mount **90** **C3**
31°4′N 7°55′W
Touggourt **91** **F3** *33°6′N 6°4′E*
Toulon **91** **F5** *43°8′N 5°55′E*
Toulouse **84** **E3** *43°37′N 1°27′E*
Tours **84** **E3** *47°23′N 0°42′E*
Tovu **61** **E2**
Townsville **13** **E4**
19°15′S 146°46′E
Toyama **77** **E3** *36°42′N 137°14′E*
Toyama Bay **77** **E3**
Toyota **77** **E3** *35°6′N 137°10′E*
Tozeur **91** **F3** *33°56′N 8°8′E*
Trablous **91** **L3** *34°25′N 35°52′E*
Trabzon **83** **B5** *40°59′N 39°43′E*
Trafalgar **35** **E1** *38°13′S 146°9′E*
Trafonomby, mountain **101** **F2**
24°37′S 46°41′E
Tralee **90** **B7** *52°16′N 9°43′W*
Trang **79** **E1** *7°34′N 99°36′E*
Trangan, island **62** **C2**
6°36′S 134°19′E
Trang An Landscape Complex **75** **E2**
Trangie **27** **E3** *32°2′S 147°59′E*
Transantarctic Mountains, Range **57** **P4**
Transylvanian Alps, range **87** **G3**
Traralgon **35** **E1** *38°12′S 146°32′E*
Trat **73** **C3**
Traverse City **109** **F4**
44°46′N 85°37′W
Tra Vinh **73** **D2** *9°56′N 106°20′E*
Treasury Islands **63** **H2**
Treinta y Tres **119** **D3**
33°14′S 54°23′W
Trelew **119** **C2** *43°15′S 65°20′W*
Trento **91** **G6** *46°5′N 11°7′E*
Trenton **107** **K2** *40°13′N 74°45′W*
Tres Arroyos **119** **D3**
38°22′S 60°16′W
Tres Picos, mountain **119** **C3**
38°8′S 61°58′W
Tres Puntas, Cape **119** **C2**
47°14′S 65°46′W
Treviso **91** **G6** *45°40′N 12°14′E*
Triabunna **39** **E2**
42°30′S 147°55′E
Tribulation, Cape **23** **C4**
16°5′S 145°29′E
Trieste **85** **F3** *45°39′N 13°48′E*
Trinidad, Bolivia **117** **C2**
14°50′S 64°54′W
Trinidad, island **111** **F1**
Trinidad, United States of America **109** **D3**
37°10′N 104°30′W
Trinidad and Tobago, republic **111** **G2**
Tripoli, Greece **91** **I4**
37°31′N 22°23′E
Tripoli, Libya **91** **G3**
32°54′N 13°11′E
Tripura, state **79** **E3**
Trnava **91** **H6** *48°22′N 17°36′E*
Trobriand Islands **63** **G2**
Trois-Rivieres **107** **K2**
46°21′N 72°33′W
Troitsk **81** **E5** *54°6′N 61°34′E*
Troll, Antarctic base **55** **A3**
72°1′S 2°32′E
Trollhattan **89** **I3** *58°16′N 12°18′E*
Tromso **89** **J5** *69°38′N 18°0′E*
Tronador, mountain **119** **B2**
41°9′S 71°53′W
Trondheim **85** **E5**
63°25′N 10°25′E
Tropical Rainforest Heritage of Sumatra **70** **B2**
Troudaninna, pass **15** **D3**
29°12′S 138°59′E
Trout Lake **109** **E5**
Troyes **89** **G1** *48°20′N 4°5′E*
Truc Giang **73** **D3**
10°14′N 106°22′E
Truchas Peak, mountain **109** **D3**
35°58′N 105°39′W
Trujillo, Peru **116** **B3** *8°7′S 79°1′W*
Trujillo, Venezuela **111** **E1**
9°23′N 70°26′W
Trundle **27** **E3** *32°55′S 147°43′E*
Truth or Consequences **110** **B4**
33°8′N 107°15′W
Tsagaan Nuur **75** **D4**
Tsetserleg **75** **E4**
47°29′N 101°27′E
Tshabong **101** **D2** *26°1′S 22°24′E*
Tshikapa **101** **C4** *6°25′S 20°46′E*
Tshuapa River **101** **D4**
Tsu **77** **E3** *34°43′N 136°31′E*
Tsugaru Strait **77** **F4**
Tsumeb **101** **C3** *19°14′S 17°43′E*
Tsuruoka **77** **E4**
38°42′N 139°50′E
Tsushima, island **77** **C3**
Tuamotu Archipelago, island group **59** **K4**
Tuapse **83** **B5** *44°7′N 39°4′E*
Tua Tua **61** **D3** *17°18′S 179°26′E*
Tubau **71** **C3** *3°10′N 113°43′E*
Tubbataha Reef Marine Park **71** **D3**
Tubruq **91** **I3** *32°5′N 23°58′E*
Tubuai, island **59** **K3**
Tucano **117** **F2** *10°58′S 38°47′W*
Tucson **110** **A4** *32°12′N 110°54′W*
Tucumcari **109** **D3**
35°10′N 103°44′W
Tucupita **111** **F1** *9°4′N 62°4′W*
Tucurui **117** **E3** *3°41′S 49°43′W*
Tufi **63** **F2** *9°5′S 149°19′E*
Tuggeranong, Lake **31** **D4**
Tuggeranong **31** **D4**
35°25′S 149°4′E
Tuktoyaktuk **106** **E4**
69°27′N 133°3′W
Tula **85** **H4** *54°12′N 37°38′E*
Tulagi **63** **I2** *9°3′S 160°8′E*
Tulcea **91** **J6** *45°12′N 28°48′E*
Tullah **39** **C3** *41°45′S 145°37′E*
Tullamore **27** **E3**
32°38′S 147°34′E
Tully **23** **C4** *17°56′S 145°55′E*
Tulsa **109** **E3** *36°7′N 95°56′W*
Tulun **93** **K4** *54°34′N 100°34′E*
Tumaco **116** **B4** *1°49′N 78°49′W*
Tumanang, Mount **31** **F2**
35°45′S 149°28′E
Tumbarumba **35** **F3**
35°47′S 148°1′E
Tumbes **116** **A3** *3°34′S 80°28′W*
Tumby Bay **43** **F3**
34°23′S 136°6′E
Tumen **77** **C5** *42°58′N 129°49′E*
Tumkur **79** **C2** *13°20′N 77°6′E*
Tumut **35** **F3** *35°18′S 148°14′E*
Tuncurry **27** **H3** *32°10′S 152°30′E*
Tunduru **101** **E3** *11°5′S 37°22′E*
Tungamah **35** **E2**
36°10′S 145°53′E
Tunguska River **93** **J5**
Tunis **95** **F8** *36°48′N 10°11′E*
Tunisia, republic **85** **F2**
Tunja **111** **E1** *5°33′N 73°22′W*
Tupa **117** **D1** *21°56′S 50°31′W*
Tupelo **110** **D4** *34°15′N 88°42′W*
Tupiza **117** **C1** *21°26′S 65°43′W*
Tupungato, Mount **119** **C3**
33°21′S 69°46′W
Tura **93** **K5** *64°17′N 100°15′E*
Turalla Hill **31** **F5**
35°16′S 149°23′E
Turangi **65** **G5**
Turan Lowland **81** **E4**
Turbat **78** **B3** *26°0′N 63°4′E*
Turbo **111** **E1** *8°6′N 76°44′W*
Turfan Depression **69** **G4**
Turgay **81** **E4** *49°38′N 63°30′E*
Turin **85** **E3** *45°4′N 7°40′E*
Turkana, Lake **101** **E5**
Turkey, republic **85** **H2**
Turkistan **92** **G3** *43°18′N 68°15′E*
Turkmenabat **83** **E4**
39°7′N 63°35′E
Turkmenbasy **83** **D5**
40°1′N 52°58′E
Turkmenistan, republic **78** **B4**
Turks and Caicos Islands, dependency **111** **E3**
Turku **85** **G5** *60°27′N 22°15′E*
Turnagain, Cape **65** **G4**
Turpan **75** **C4** *42°56′N 89°10′E*
Tuscaloosa **110** **D4**
33°14′N 87°33′W
Tuticorin **79** **C1** *8°49′N 78°8′E*

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Tutuala **62** B2 *8° 24′ S 127° 16′ E*
Tuvalu, independent state **59** G5
Tuvutau, mountain **61** B2 *18° 2′ S 177° 45′ E*
Tuxpan **110** B3 *21° 56′ N 105° 16′ W*
Tuxtla Gutierrez **110** C2 *16° 45′ N 93° 9′ W*
Tuxtla Mountains **110** C2
Tuyen Quang **73** D5
Tuy Hoa **73** E3
Tuz, Lake **83** B4
Tuzla **91** H5 *44° 33′ N 18° 41′ E*
Tver **85** H4 *56° 52′ N 35° 53′ E*
Tweed Heads **27** H5 *28° 11′ S 153° 33′ E*
Twin Falls **108** C4 *42° 34′ N 114° 28′ W*
Twofold Bay **27** G1 *37° 5′ S 149° 57′ E*
Tyers, Lake **35** F2
Tyler **110** C4 *32° 21′ N 95° 18′ W*
Tynda **93** M4 *55° 10′ N 124° 42′ E*
Tyrrell, Lake **34** C3
Tyrrhenian Sea **85** F2
Tyumen **92** G4 *57° 8′ N 65° 32′ E*
Tzaneen **101** E2 *23° 49′ S 30° 10′ E*

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Uahuka, island **59** L5
Ubangi River **101** C5
Ubari Desert **99** E4
Ube **77** C2 *33° 59′ N 131° 19′ E*
Uberaba **113** G5 *19° 47′ S 47° 57′ W*
Uberlandia **113** G5 *18° 54′ S 48° 17′ W*
Ubomba **101** E2 *27° 34′ S 32° 5′ E*
Ubon Ratchathani **70** B4 *15° 15′ N 104° 50′ E*
Ucayali River **116** B3
Uchiura Bay **77** F5
Uda Bay **93** N4
Udachnyy **93** L5 *66° 25′ N 112° 24′ E*
Udaipur **79** C3 *24° 36′ N 73° 44′ E*
Udine **91** G6 *46° 4′ N 13° 14′ E*
Udon Thani **79** F2 *17° 24′ N 102° 47′ E*
Udu Point, cape **61** E4 *16° 7′ S 179° 57′ W*
Uelen **93** T5 *66° 9′ N 169° 49′ W*
Uele River **101** D5
Ufa **85** J4 *54° 48′ N 56° 2′ E*
Uganda, republic **101** E5
Uglegorsk **93** O3 *49° 5′ N 142° 2′ E*
Uglich **89** N3 *57° 31′ N 38° 20′ E*
Uige **100** C4 *7° 37′ S 15° 3′ E*
Ujjain **79** C3 *23° 11′ N 75° 47′ E*
Ukhta **92** F5 *63° 34′ N 53° 41′ E*
Ukiah **108** B3 *39° 9′ N 123° 13′ W*
Ukraine, republic **85** G3
Ulaanbaatar **75** E4 *47° 55′ N 106° 55′ E*
Ulaangom **75** D5 *49° 59′ N 92° 4′ E*
Ulaan-Uul **75** F4 *44° 20′ N 111° 14′ E*
Ulamona **63** G3 *5° 1′ S 151° 16′ E*
Ulanhot **77** A6 *46° 5′ N 122° 5′ E*
Ulan Ude **75** E5 *51° 49′ N 107° 37′ E*
Ulawun, mountain **63** G2 *5° 3′ S 151° 20′ E*
Uliastay **75** D4 *47° 45′ N 96° 49′ E*
Ulingan **63** F3 *4° 29′ S 145° 22′ E*
Ulladulla **27** G2 *35° 22′ S 150° 28′ E*
Ullung Island **77** C3 *37° 31′ N 130° 52′ E*
Ulm **89** H1 *48° 24′ N 10° 0′ E*
Ulsan **77** C3 *35° 33′ N 129° 19′ E*
Ulugh Muztag, mountain **74** C3 *36° 25′ N 87° 25′ E*
Uluiqalau, mountain **61** E4 *16° 55′ S 180° 0′ E*
Ulundi **101** E2 *28° 20′ S 31° 25′ E*
Uluru **51** C2 *25° 21′ S 131° 2′ E*
Uluru–Kata Tjuta National Park **51** C2
Ulverstone **39** D3 *41° 10′ S 146° 11′ E*
Ulyanovsk **85** I4 *54° 20′ N 48° 25′ E*
Uman **89** L1 *48° 45′ N 30° 13′ E*
Umboi Island **63** F2 *5° 38′ S 147° 55′ E*
Umea **89** K4 *63° 50′ N 20° 14′ E*
Umm al Abid **91** H2 *27° 31′ N 15° 2′ E*
Umm Ruwaba **83** B2 *12° 55′ N 31° 12′ E*
Umtata **101** D1 *31° 35′ S 28° 47′ E*
Unalakleet **106** C4 *63° 52′ N 160° 47′ W*
Unbunmaroo, Mount **23** B3 *22° 32′ S 140° 17′ E*
Undara Volcanic National Park **23** B4
Underbool **34** B3 *35° 10′ S 141° 48′ E*
Ungarie **27** E3 *33° 38′ S 146° 59′ E*
Ungava Bay **107** L3
Ungava Penisula **107** K4
Ungerum **62** E2 *6° 30′ S 141° 7′ E*
United Arab Emirates, kingdom **83** D3
United Kingdom, commonwealth **84** D4
United States of America, republic **110** C4
University of Canberra **31** D5 *35° 14′ S 149° 5′ E*
Unzen-dake, mountain **77** C2 *32° 45′ N 130° 18′ E*
Upernavik **107** M5 *72° 43′ N 56° 9′ W*
Upington **101** D2 *28° 28′ S 21° 14′ E*
Upper Hutt **65** F4 *41° 8′ S 175° 2′ E*
Upper Klamath Lake **108** B4
Upper Red Lake **107** I2
Uppsala **85** F4 *59° 52′ N 17° 38′ E*
Uralla **27** G4 *30° 38′ S 151° 30′ E*
Ural Mountains **69** E5
Ural River **87** J4
Urana **35** E3 *35° 20′ S 146° 16′ E*
Urana, Lake **35** E3
Uranium City **107** H3 *59° 34′ N 108° 37′ W*
Urata **61** D4 *16° 43′ S 179° 21′ E*
Urgentch **83** E5 *41° 34′ N 60° 38′ E*
Urmia **80** C3 *37° 32′ N 45° 0′ E*
Urmia, Lake **80** C2
Uroteppa **81** E3 *39° 55′ N 69° 0′ E*
Uruapan **110** B2 *19° 25′ N 102° 4′ W*
Uruguay, republic **119** D3
Uruguay River **113** F3
Urumqi **75** C4 *43° 48′ N 87° 34′ E*
Urunga **27** H4 *30° 30′ S 153° 1′ E*
Uryupinsk **91** M7 *50° 46′ N 42° 0′ E*
Urzhar **93** I3 *47° 6′ N 81° 36′ E*
Usak **83** A4 *38° 41′ N 29° 25′ E*
Ushakova Island **93** H7
Ushtobe **74** B4 *45° 16′ N 77° 58′ E*
Ushuaia **119** C1 *54° 47′ S 68° 19′ W*
US Naval Base Guantanamo Bay **109** G1
Ussuri River **77** D6
Ussuriysk **77** D5 *43° 48′ N 132° 1′ E*
Ust Kut **93** K4 *56° 46′ N 105° 46′ E*
Ust Kuyga **93** N5 *70° 1′ N 135° 36′ E*
Ust Maya **93** N5 *60° 27′ N 134° 33′ E*
Ustyurt Plateau **81** D4
Usumacinta River **110** C2
Utah, state **108** C3
Utah Lake **108** C4
Uthai Thani **73** B4 *15° 23′ N 100° 2′ E*
Utopia **51** E3 *22° 14′ S 134° 34′ E*
Utrecht **85** E4 *52° 6′ N 5° 7′ E*
Utsunomiya **77** E3 *36° 33′ N 139° 52′ E*
Uttaradit **70** B4 *17° 38′ N 100° 6′ E*
Uttaranchal, state **79** C4
Uttar Pradesh, state **79** D3
Uvinza **101** E4 *5° 7′ S 30° 23′ E*
Uvs (Uvs Nuur), Lake **75** D4
Uvs Nuur Basin **75** D5
Uyuni **117** C1 *20° 28′ S 66° 50′ W*
Uzbekistan, republic **78** B4
Uzhgorod **89** K1 *48° 38′ N 22° 15′ E*

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Vaal River **101** D2
Vaasa **89** K4 *63° 6′ N 21° 36′ E*
Vac **91** H6 *47° 47′ N 19° 8′ E*
Vadodara **79** C3 *22° 19′ N 73° 11′ E*
Vaduz **85** F3 *47° 8′ N 9° 31′ E*
Vaghena Kolobangara, island **63** H2 *7° 53′ S 157° 4′ E*
Valdes **90** C5 *1° 16′ N 78° 59′ W*
Valdez **106** D4 *61° 8′ N 146° 21′ W*
Valdivia **119** B3 *39° 48′ S 73° 15′ W*
Valdosta **111** D4 *30° 50′ N 83° 17′ W*
Valenca **117** F2 *13° 22′ S 39° 5′ W*
Valencia, Lake **111** F1
Valencia, Spain **84** D2 *39° 29′ N 0° 24′ W*
Valencia, Venezuela **111** F2 *10° 14′ N 67° 59′ W*
Vale of Kashmir, wetlands **81** F3
Valladolid **84** D3 *41° 39′ N 4° 45′ W*
Valledupar **111** E2 *10° 29′ N 73° 15′ W*
Vallee de Mai Nature Reserve **101** G4
Valletta **85** F2 *35° 54′ N 14° 31′ E*
Valparaiso, Chile **119** B3 *33° 3′ S 71° 37′ W*
Valparaiso, Mexico **110** B3 *22° 46′ N 103° 34′ W*
Valuyki **91** L7 *50° 13′ N 38° 6′ E*
Vambea **61** C2 *18° 55′ S 178° 29′ E*
Van **80** C3
Van, Lake **80** C2
Vanadzor **83** C5 *40° 49′ N 44° 29′ E*
Vancouver, Canada **108** B4 *49° 17′ N 123° 7′ W*
Vancouver, United States of America **108** B4 *45° 38′ N 122° 38′ W*
Vancouver Island **108** B4
Vanderlin Island **51** F7
Van Diemen, Cape **51** B9 *11° 10′ S 130° 22′ E*
Van Diemen Gulf **51** C9 *11° 50′ S 132° 0′ E*
Vanern, Lake **85** F4
Vangunu, island **63** H2 *8° 37′ S 157° 57′ E*
Van Horn **110** B4 *31° 3′ N 104° 50′ W*
Vanhynsdorp **101** C1 *31° 37′ S 18° 44′ E*
Vanimo **62** E3 *2° 41′ S 141° 18′ E*
Vanua Levu, island **59** G4
Vanuatu, republic **59** F4
Vanuavou **61** D4 *16° 30′ S 179° 39′ E*
Varamin **83** D4 *35° 19′ N 51° 39′ E*
Varanasi **79** D3 *25° 20′ N 82° 0′ E*
Varna **85** G3 *43° 13′ N 27° 54′ E*
Vasteraas **85** F4 *59° 38′ N 16° 32′ E*
Vatican City **85** F3
Vatnajokull, range **88** C4
Vattern, Lake **87** F4
Vatu-i-ra Channel **61** C3
Vatukoula **61** B3 *17° 30′ S 177° 51′ E*
Vatu Lele, island **61** B2 *18° 31′ S 177° 38′ E*
Vavau, island **59** H4
Vaxjo **89** J3 *56° 53′ N 14° 49′ E*
Vaygach Island **93** G6
Vegreville **108** C5 *53° 30′ N 112° 3′ W*
Velikiye Luki **89** M3 *56° 19′ N 30° 31′ E*
Velikiy Novgorod **85** H4 *58° 30′ N 31° 20′ E*

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Velikiy Ustyug **92** **E5** *60°46′N 46°18′E*
Vella Lavella, island **63** **H2** *7°41′S 156°38′E*
Vellore **79** **C2** *12°55′N 79°9′E*
Venezuela, Gulf of **111** **E2**
Venezuela, republic **111** **F1**
Venice **85** **F3** *45°26′N 12°20′E*
Ventspils **89** **K3** *57°23′N 21°34′E*
Veracruz **110** **C2** *19°11′N 96°10′W*
Verde, Cape **98** **B3** *14°44′N 17°28′W*
Vereeniging **101** **D2** *26°39′S 27°57′E*
Verevere **61** **C3** *17°33′S 178°22′E*
Verkhoyansk **93** **N5** *67°33′N 133°23′E*
Verkhoyansk Range **69** **I5**
Vermont, state **109** **G4**
Vernadsky, Antarctic base **55** **O3** *65°14′S 64°15′W*
Vernal **108** **D4** *40°27′N 109°32′W*
Vernon **110** **C4** *34°9′N 99°17′W*
Vero Beach **111** **E3** *27°39′N 80°23′W*
Verona, Italy **85** **F3** *45°26′N 10°59′E*
Versailles **89** **G1** *48°48′N 2°8′E*
Vesteralen, island **85** **F5**
Vesuvius, Mount **87** **F3** *40°49′N 14°26′E*
Viborg **89** **H3** *56°26′N 9°24′E*
Vibo Valentia **91** **H4** *38°40′N 16°6′E*
Vicente Guerrero **110** **A4** *30°46′N 116°1′W*
Vichy **90** **E6** *46°7′N 3°25′E*
Vicksburg **110** **C4** *32°21′N 90°53′W*
Victor Harbor **43** **G3** *35°33′S 138°37′E*
Victoria, Canada **106** **F2** *48°26′N 123°21′W*
Victoria, Lake **34** **B3**
Victoria, Mount **23** **C6** *8°55′S 147°33′E*
Victoria, Seychelles **101** **G4** *4°37′S 55°27′E*
Victoria, state **39** **D5**
Victoria, United States of America **110** **C3** *28°48′N 97°0′W*
Victoria Falls **101** **D3**
Victoria Inn Roadhouse **51** **C7** *15°39′S 131°7′E*
Victoria Island **107** **H5**
Victoria River **51** **C6**
Victoria River Downs **51** **C6** *16°24′S 131°1′E*
Viedma **119** **C2** *40°48′S 63°0′W*
Viedma, Lake **119** **B2**
Vienna **85** **F3** *48°12′N 16°22′E*
Vientiane **79** **F2** *17°58′N 102°36′E*
Vietnam, republic **73** **D3**
Viet Tri **70** **B5** *21°20′N 105°26′E*
Vigo **84** **D3** *42°13′N 8°44′W*
Vijayawada **79** **D2** *16°31′N 80°38′E*
Vilanculos **101** **E2** *22°0′S 35°19′E*
Vila Velha, Amapa **117** **D4** *3°13′N 51°13′W*
Vila Velha, Esprito Santo **117** **E1** *20°22′S 40°19′W*
Vilkitskogo Strait **93** **K6**
Villa Ahumada **110** **B4** *30°37′N 106°31′W*
Villahermosa **110** **C2** *18°0′N 92°54′W*
Villa Maria **119** **C3** *32°25′S 63°16′W*
Villa Martin **117** **C1** *20°46′S 67°47′W*
Villanueva **110** **B3** *22°21′N 102°53′W*
Villarrica **117** **D1** *25°45′S 56°26′W*
Villavicencio **116** **B4** *4°9′N 73°38′W*
Villazon **117** **C1** *22°5′S 65°36′W*
Vilnius **85** **G4** *54°41′N 25°19′E*
Vilyuy River **93** **L5**
Vilyuysk **93** **M5** *63°45′N 121°37′E*
Vincennes Bay **57** **F3**
Vindhya Range **79** **C3**
Vinh **70** **B4** *18°42′N 105°41′E*
Vinnytsya **85** **G3** *49°14′N 28°29′E*
Violet Town **35** **D2** *36°38′S 145°43′E*
Virginia, state **109** **G3**
Virginia Beach **109** **G3** *36°51′N 75°59′W*
Virgin Islands (UK), dependency **111** **F2**
Virgin Islands (USA), dependency **111** **F2**
Virgin Komi Forests **92** **F5**
Virunga National Park **101** **D4**
Visalia **108** **C3** *36°20′N 119°19′W*
Visby **89** **J3** *57°38′N 18°18′E*
Viscount Melville Sound **107** **G5**
Viseisei **61** **B3** *17°40′S 177°24′E*
Vishakhapatnam **79** **D2** *17°44′N 83°18′E*
Vistula River **85** **F4**
Vitiaz Strait **63** **F2**
Viti Levu, island **61** **B3**
Vitim River **93** **L4**
Vitogo **61** **B3** *17°36′S 177°30′E*
Vitoria, Brazil **117** **E1** *20°19′S 40°22′W*
Vitoria, Spain **84** **D3** *42°51′N 2°40′W*
Vitoria da Conquista **113** **H5** *14°51′S 40°50′W*
Vitsyebsk **85** **G4** *55°11′N 30°11′E*
Viveiro **90** **C5** *43°39′N 7°35′W*
Viwa, island **61** **A3** *17°9′S 176°53′E*
Vizianagaram **79** **D2** *18°7′N 83°30′E*
Vladikavkaz **85** **I3** *43°3′N 44°40′E*
Vladimir **85** **H4** *56°8′N 40°25′E*
Vladivostok **77** **C5** *43°8′N 131°55′E*
Vlore **91** **H5** *40°29′N 19°30′E*
Volcanoes of Kamchatka **93** **P4**
Volga Delta, depression **81** **C4**
Volga River **85** **I3**
Volga Upland, plateau **87** **J4**
Volgodonsk **85** **I3** *47°31′N 42°10′E*
Volgograd **85** **I3** *48°43′N 44°30′E*
Volkhov **89** **M4** *59°56′N 32°20′E*
Volksrust **101** **E2** *27°22′S 29°53′E*
Vologda **85** **I4** *59°13′N 39°55′E*
Volos **91** **I4** *39°22′N 22°57′E*
Volta, Lake **100** **A5**
Voltaire, Cape **13** **C4** *14°16′S 125°35′E*
Volzhskiy **92** **E3** *48°48′N 44°46′E*
Vomo, island **61** **B3** *17°29′S 177°16′E*
Vorkuta **93** **G5** *67°30′N 64°1′E*
Voronezh **85** **I4** *51°44′N 39°16′E*
Vostok, Antarctic base **55** **F3** *78°28′S 106°48′W*
Vostok, island **59** **J4**
Votua **61** **C4** *16°40′S 178°43′E*
Voua **61** **B2** *18°7′S 177°26′E*
Voznesensk **89** **M1** *47°33′N 31°20′E*
Vratsa **91** **I5** *43°13′N 23°34′E*
Vryburg **101** **D2** *26°58′S 24°44′E*
Vryheid **101** **E2** *27°46′S 30°47′E*
Vuda Point, cape **61** **B3** *17°40′S 177°24′E*
Vulkathunna / Gammon Ranges National Park **43** **G5**
Vunaniu **61** **B2** *18°15′S 177°52′E*
Vuna Point, cape **61** **D4** *16°57′S 179°54′E*
Vung Tau **70** **B4** *10°21′N 107°5′E*
Vunisamaloa **61** **B3** *17°34′S 177°44′E*
Vyazemskiy **77** **D6** *47°32′N 134°45′E*
Vyazma **89** **M3** *55°13′N 34°18′E*
Vyborg **89** **L4** *60°42′N 28°45′E*
Vychegda Lowland **87** **J5**
Vyshnniy Volochek **89** **N3** *57°35′N 34°34′E*

W

Wabag **62** **E2** *5°29′S 143°43′E*
Wabuda Island **63** **E2** *8°21′S 143°38′E*
Waco **110** **C4** *31°33′N 97°9′W*
Wadbilliga National Park **35** **F2**
Waddington, Mount **108** **B5** *51°22′N 125°16′W*
Waddys Plain **31** **B6** *35°6′S 148°45′E*
Wadeye **51** **B7** *14°14′S 129°31′E*
Wadi Al-Hitan (Whale Valley) **91** **J2**
Wadi Halfa **83** **B3** *21°48′N 31°21′E*
Wadi Rum **83** **B3**
Wadi Rum Protected Area **99** **G4**
Wagga Wagga **35** **E3** *35°8′S 147°21′E*
Wagin **47** **C2** *33°19′S 117°21′E*
Wagstaffe **27** **G3** *33°31′S 151°20′E*
Wahai **62** **B3** *2°48′S 129°29′E*
Wahiba Sands, desert **83** **D3**
Waiau River **65** **B2**
Waibeem **62** **C3** *0°28′S 132°58′E*
Waidina River **61** **C3**
Waigeo, island **71** **E3** *0°12′S 130°58′E*
Waigeo **62** **C3** *0°13′S 130°31′E*
Waihi **65** **G6** *37°24′S 175°49′E*
Waikama **61** **D2** *18°1′S 179°17′E*
Waikaremoana, Lake **65** **G5**
Waikato River **65** **F6**
Waikerie **43** **G3** *34°11′S 139°59′E*
Wailevu **61** **D4** *16°41′S 179°15′E*
Wailotua **61** **C3** *17°46′S 178°24′E*
Waimate **65** **D2** *44°45′S 171°3′E*
Waingapu **71** **D2** *9°39′S 120°15′E*
Wainibula River **61** **C3**
Wainimala River **61** **C3**
Waipapa Point **65** **C1** *46°40′S 168°51′E*
Waipukurau **65** **G5** *40°0′S 176°34′E*
Wairarapa, Lake **65** **F4**
Wairau River **65** **E4**
Wairoa **65** **F6** *37°43′S 176°5′E*
Wairuarua **61** **C3** *17°43′S 178°12′E*
Waitakere **65** **F6** *36°51′S 174°33′E*
Waitaki River **65** **D2**
Waitangi **65** **F7** *35°17′S 174°4′E*
Waitara **65** **E5** *39°0′S 174°13′E*
Waitoga **61** **D3** *17°49′S 179°25′E*
Waiuku **65** **F6** *37°15′S 174°43′E*
Waiyevo **61** **E4**
Wajir **99** **H2** *1°45′N 40°3′E*
Wakasa Bay **77** **D3**
Wakatipu, Lake **65** **C2**
Wakaya, island **61** **D3** *17°37′S 179°0′E*
Wakayama **77** **D3** *34°13′N 135°10′E*
Wakema **79** **E2** *16°37′N 95°11′E*
Wakkanai **77** **F5** *45°25′N 141°40′E*
Wakool **35** **D3** *35°28′S 144°24′E*
Waku Kungo **101** **C3** *11°22′S 15°7′E*
Walbrzych **89** **J2** *50°47′N 16°17′E*
Walcha **27** **G4** *30°59′S 151°36′E*
Walgett **27** **F5** *30°1′S 148°7′E*

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Walir, island **62** **C2**
5°38′S 132°19′E
Walker Island **39** **C4**
Wallan **35** **D2** *37°25′S 144°59′E*
Wallaroo **43** **F4** *33°56′S 137°38′E*
Walla Walla **108** **C4**
46°4′N 119°21′W
Wallis and Futuna Islands, dependency **59** **H4**
Walls of Jerusalem National Park **39** **D3**
Walvis Bay **100** **C2**
22°57′S 14°30′E
Wamboin **31** **E5** *35°15′S 149°17′E*
Wamena **62** **D3** *3°53′S 138°36′E*
Wami **62** **C3** *2°46′S 133°19′E*
Wanaka **65** **C2** *44°42′S 169°7′E*
Wanaka, Lake **65** **C2**
Wanapiri **62** **D3** *4°28′S 135°59′E*
Wandong **35** **D2** *37°22′S 145°2′E*
Wanganui **65** **F5** *39°56′S 175°2′E*
Wanganui River **65** **F5**
Wangaratta **35** **E2**
36°22′S 146°19′E
Wangqing **77** **C5**
43°19′N 129°44′E
Wangrah, Mount **31** **E1**
35°53′S 149°20′E
Wanneroo **12** **B2**
31°46′S 115°49′E
Wanniassa, Mount **31** **D4**
35°23′S 149°7′E
Wannon River **34** **B2**
Wanxian **75** **E3**
30°49′N 108°24′E
Warangal **79** **D2** *18°1′N 79°35′E*
Warang Basin **35** **D2**
Waratah **39** **C3** *41°27′S 145°32′E*
Waratah Bay **35** **E1**
38°51′S 146°3′E
Warburton, Victoria **35** **D2**
37°45′S 145°41′E
Warburton, Western Australia **51** **A1** *26°8′S 126°35′E*
Warby–Ovens National Park **35** **E2**
Ward Hunt, Cape **63** **F2**
8°6′S 148°5′E
Warialda **27** **G5**
29°33′S 150°35′E
Warracknabeal **34** **C2**
36°15′S 142°24′E
Warragul **35** **D1** *38°10′S 145°56′E*
Warrego **51** **D5** *19°27′S 133°50′E*
Warrego River **23** **C2**
Warren **27** **E4** *31°42′S 147°50′E*
Warri **100** **B5** *5°31′N 5°46′E*
Warrnambool **13** **E2**
38°23′S 142°28′E
Warrumbungle National Park **27** **F4**
Warrumbungle Range **27** **F4**
Warruwi **62** **C1** *11°39′S 133°23′E*
Warsaw **85** **G4** *52°15′N 20°0′E*
Waru **62** **C3** *3°23′S 130°39′E*
Warwick, Australia **27** **H5**
28°13′S 152°2′E
Wasa, Antarctic base **55** **Q3**
73°3′S 13°25′W
Washington, Cape **61** **B1**
19°8′S 177°58′E
Washington, D.C. **109** **G3**
38°54′N 77°1′W
Washington, Mount **109** **G4**
44°16′N 71°18′W
Washington, state **108** **C4**
Washpool National Park **27** **H5**
Wasian **62** **C3** *1°52′S 133°20′E*
Watam **63** **E3** *3°55′S 144°32′E*
Watampone **71** **D2**
4°32′S 120°20′E
Watarrka National Park **51** **C2**
Waterbury **109** **G4**
41°33′N 73°3′W
Waterford **88** **E2** *52°15′N 7°7′W*
Waterhouse Island **39** **E4**
Waterloo **109** **E4**
42°30′N 92°21′W
Waterton Glacier International Peace Park **108** **C4**
Watertown **109** **G4**
43°59′N 75°55′W
Waterville **109** **G4**
44°33′N 69°39′W
Watheroo National Park **47** **C3**
Watsa **101** **E5** *3°2′N 29°32′E*
Watson **43** **C5** *30°30′S 131°26′E*
Watson Lake **106** **F4**
60°7′N 128°48′W
Wau **101** **D5** *7°42′N 27°59′E*
Wauchope, New South Wales **27** **H4** *31°27′S 152°44′E*
Wauchope, Northern Territory **51** **E4** *20°38′S 134°13′E*
Waukegan **107** **J2**
42°22′N 87°51′W
Wausau **107** **J2**
44°58′N 89°38′W
Wave Hill **51** **C6** *17°23′S 131°7′E*
Wavuwavu **61** **D4**
16°18′S 179°29′E
Wawa **109** **F4** *48°0′N 84°47′W*
Waya, island **61** **B3**
17°17′S 177°8′E
Wayakuba **62** **B3**
0°50′S 127°48′E
Wayasewa, island **61** **B3**
17°20′S 177°9′E
Waycross **111** **D4** *31°13′N 82°21′W*
Weam **62** **E2** *8°35′S 141°7′E*
Weda Bay **62** **B4**
Weddell Sea **55** **P3**
Wedderburn **34** **C2**
36°25′S 143°37′E
Wednesday Island **62** **E1**
Wee Jasper **31** **A6**
35°7′S 148°41′E
Wee Jasper, Mount **31** **A5**
35°10′S 148°38′E
Wee Waa **27** **F4**
30°14′S 149°26′E
Weifang **75** **G3** *36°43′N 119°6′E*
Weihai **75** **G3** *37°30′N 122°6′E*
Weinan **75** **E3** *34°30′N 109°30′E*
Weipa **62** **E1** *12°40′S 141°52′E*
Welford National Park **23** **B3**
Welkom, South Africa **101** **D2**
27°58′S 26°44′E
Wellington, Australia **27** **F3**
32°33′S 148°57′E
Wellington, Lake **35** **E1**
Wellington, Mount **39** **E2**
42°54′S 147°14′E
Wellington, New Zealand **65** **F4**
41°18′S 174°47′E
Wellington Island **119** **B2**
Wells, Lake **47** **D3**
Wellsford **65** **F6** *36°18′S 174°31′E*
Wenatchee **108** **C4**
47°25′N 120°19′W
Wenshan **79** **F3**
23°22′N 104°15′E
Wentworth **26** **C2**
34°6′S 141°55′E
Wenzhou **75** **G2** *28°1′N 120°39′E*
Werribee **35** **D2**
37°54′S 144°40′E
Werrikimbe National Park **27** **H4**
Werris Creek **27** **G4**
31°21′S 150°39′E
Wessel, Cape **62** **D1**
Wessel Islands **51** **F9**
West Antarctica **57** **N3**
West Bengal, state **79** **D3**
Westbury **39** **D3**
41°32′S 146°51′E
West Cape Howe **47** **C1**
35°8′S 117°37′E
West Coast **65** **D3**
West Dvina River **87** **G4**
Western Australia, state **47** **D4**
Western Desert **91** **J2**
Western Dvina River **89** **L3**
Western Ghats, range **79** **C2**
Western Port **35** **D1**
38°22′S 145°31′E
Western Sahara, dependency **98** **B4**
Western Sayan, range / mountain **93** **J4**
Western Sayan Mountains **75** **C5**
Western Siberian Plain **69** **F5**
Western Sierra Madre **110** **B3**
Western Tien-shan **74** **B4**
West Falkland, island **119** **C1**
West Ice Shelf **57** **E3**
West Indies, island group **105** **L4**
West Korea Bay **77** **B4**
West MacDonnell National Park **51** **C3**
West Norwegian Fjords **89** **H4**
Weston Creek **31** **D4**
35°21′S 149°3′E
West Palm Beach **111** **E3**
26°45′N 80°7′W
West Point, South Australia **43** **E3** *35°0′S 135°57′E*
West Point, Tasmania **39** **B4**
40°57′S 144°37′E
Westport **65** **D4** *41°46′S 171°34′E*
West Virginia, state **109** **F3**
West Wyalong **27** **E3**
33°55′S 147°12′E
Wetar, island **62** **B2**
Wewak **62** **E3** *3°33′S 143°38′E*
Weyburn **109** **D4**
49°40′N 103°51′W
Whakatane **65** **G5**
37°59′S 177°0′E
Whale Sanctuary of El Vizcaino **110** **A3**
Whale Valley **99** **F4**
Whangamata **65** **G6**
37°13′S 175°53′E
Whangarei **65** **F7**
35°43′S 174°19′E
Wharton **110** **C3** *29°15′N 97°4′W*
Wheeler Peak, mountain **108** **C3**
38°59′N 114°19′W
Wheeling **109** **F4**
40°4′N 80°43′W
White, Lake **51** **B4**
White Cliffs **26** **C4**
30°51′S 143°5′E
Whitehorse **106** **E4**
60°43′N 135°3′W
White Island **65** **G6**
Whitemark **39** **F4** *40°7′S 148°1′E*
White Mountains National Park **23** **C3**
White Nile **83** **B2**
White Sea **85** **H5**
White Volta **98** **C3**
Whitianga **65** **F6**
36°50′S 175°41′E
Whitney, Mount **108** **C3**
36°36′N 119°18′W
Whitsunday Group, island group **23** **D3**
Whitsunday Island **23** **D3**
Whittlesea **35** **D2**
37°31′S 145°7′E
Whyalla **43** **F4** *33°2′S 137°34′E*
Wichita **109** **E3** *37°43′N 97°20′W*
Wichita Falls **110** **C4**
33°55′N 98°30′W
Wickham, Cape **39** **A5**
39°35′S 143°57′E
Wide Bay **63** **G2**
Widgiemooltha **13** **C2**
31°29′S 121°32′E
Wiesbaden **89** **H1** *50°5′N 8°15′E*
Wilandra Lakes **26** **C3**
Wilberforce, Cape **51** **F9**
11°53′S 136°34′E
Wilcannia **26** **C4**
31°34′S 143°23′E
Wilhelm, Mount **63** **F2**
5°48′S 145°2′E
Wilhelm II Coast **57** **E3**
Wilkes Barre **109** **G4**
41°15′N 75°53′W

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Wilkes Land **57** **G3**
Willandra National Park **26** **D3**
Willaura **34** **C2**
37°33′S 142°44′E
Willcox **110** **B4**
32°15′N 109°50′W
Willemstad **111** **F2**
12°12′N 69°1′W
Willeroo **51** **C7** *15°17′S 131°35′E*
William, Mount **34** **C2**
37°18′S 142°36′E
William Creek **43** **F6**
28°54′S 136°20′E
Williamsdale **31** **D3**
35°34′S 149°8′E
Williams Lake **108** **B5**
52°7′N 122°9′W
Williamsport **109** **G4**
41°14′N 77°0′W
Williston **109** **D4**
48°9′N 103°38′W
Williston Lake **106** **F3**
Willmar **109** **E4** *45°7′N 95°3′W*
Wills, Lake **51** **B4**
Wilmington, Australia **43** **G4**
32°39′S 138°6′E
Wilmington, United States of America **109** **G3**
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Wilsons Promontory **35** **E1**
38°55′S 146°22′E
Wilsons Promontory National Park **39** **D5**
Wiluna **47** **D3** *26°36′S 120°13′E*
Wimmera **34** **B2**
Wimmera River **34** **C2**
Winchelsea **34** **C1**
38°15′S 143°59′E
Windhoek **101** **C2** *22°34′S 17°5′E*
Windorah **13** **E3**
25°26′S 142°39′E
Windward Passage **111** **E2**
Wingham **27** **H4**
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Winisk River **107** **J3**
Winnebago, Lake **109** **F4**
Winnemucca **108** **C4**
40°58′N 117°44′W
Winnipeg **109** **E5**
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Winnipeg, Lake **109** **E5**
Winnipegosis, Lake **109** **E5**
Winona **109** **E4** *44°3′N 91°38′W*
Winslow **108** **C3**
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Winston-Salem **109** **G3**
36°6′N 80°16′W
Winter Haven **111** **D3**
28°1′N 81°44′W
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Wonsan **77** **B4**
39°10′N 127°26′E
Wonthaggi **35** **D1**
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Woodbridge **39** **E1**
43°10′S 147°14′E
Wood Buffalo National Park **107** **H4**
Woodend **35** **D2**
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Woodlark Island **63** **G2**
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Woodroffe, Mount **43** **C7**
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Woodside **35** **E1**
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Woods Point **35** **E2**
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Woodward **109** **E3**
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Woolgoolga **27** **H4**
30°7′S 153°11′E
Woolpack, Mount **31** **F2**
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Woorinen **34** **C3**
35°18′S 143°27′E
Worcester **109** **G4**
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Wroclaw **85** **F4** *51°7′N 17°2′E*
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Wuhan **75** **F3** *30°35′N 114°16′E*
Wuhu **75** **F3** *31°21′N 119°22′E*
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Wurzburg **89** **I1** *49°48′N 9°57′E*
Wuwei **75** **E3** *37°56′N 102°38′E*
Wuxi **75** **F3** *31°35′N 120°18′E*
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20°25′N 104°2′E
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Xiamen **75** **F2** *24°27′N 119°5′E*
Xian **75** **E3** *34°17′N 108°54′E*
Xiangfan **75** **F3** *32°1′N 112°8′E*
Xiangkhoang **73** **C5**
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Xiangtai **75** **F3** *37°3′N 114°30′E*
Xiangtan **75** **F2**
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Xichang **79** **F3**
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Xinyang **75** **F3** *32°8′N 114°4′E*
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Yakeshi **75** **G4** *49°17′N 120°44′E*
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Yako **61** **B3** *17°52′S 177°21′E*
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Authors:	Raymond Pask, Lynne Griffiths, Jane Bellamy, Jill Price, Nicole Gray, John Ramsdale, Alex Rossimel
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